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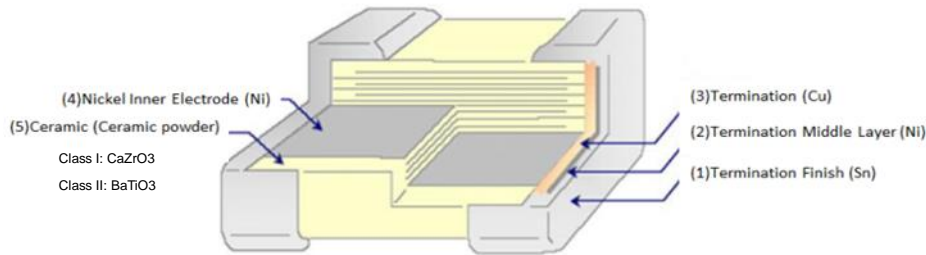
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**E Standard Number**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| E3  | 1.0 |     |     |     |     |     | 2.2 |     |     |     |     |     | 4.7 |     |     |     |     |     |     |     |     |     |     |     |
| E6  | 1.0 |     | 1.5 |     |     |     | 2.2 |     |     | 3.3 |     |     | 4.7 |     |     | 6.8 |     |     |     |     |     |     |     |     |
| E12 | 1.0 | 1.2 | 1.5 | 1.8 | 2.2 | 2.7 | 3.3 | 3.9 | 4.7 | 5.6 | 6.8 | 8.2 |     |     |     |     |     |     |     |     |     |     |     |     |
| E24 | 1.0 | 1.1 | 1.2 | 1.3 | 1.5 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.7 | 3.0 | 3.3 | 3.6 | 3.9 | 4.3 | 4.7 | 5.1 | 5.6 | 6.2 | 6.8 | 7.5 | 8.2 | 9.1 |

## Structure



## Ordering Code

**C 1005 NP0 101 J G T S  $\Delta$**

### PRODUCT CODE

C = MLCC

### SIZE in mm (EIA CODE, in inch)

0402(01005)    0603(0201)    1005 (0402)    1608 (0603)    2012 (0805)  
 3216 (1206)    3225(1210)    4520 (1808)    4532 (1812)

### T. C.

NP0:  $0 \pm 30\text{ppm}/^\circ\text{C}$      $-55^\circ\text{C}$  to  $+125^\circ\text{C}$     X5R:  $\pm 15\%$      $-55^\circ\text{C}$  to  $+85^\circ\text{C}$   
 X7R:  $\pm 15\%$     X7S:  $\pm 22\%$     X7T:  $+22\%/-33\%$     X7U:  $+22\%/-56\%$      $-55^\circ\text{C}$  to  $+125^\circ\text{C}$   
 X6S:  $\pm 22\%$      $-55^\circ\text{C}$  to  $+105^\circ\text{C}$

### CAPACITANCE CODE

Expressed in pico-farads and identified by a three-digit number.  
 First two digits represent significant figures.  
 Last digit specifies the number of zeros.  
 (Use 9 for 1.0 through 9.9pF ; Use 8 for 0.20 through 0.99pF)

Examples:

| Code | Cap (pF) |
|------|----------|
| 478  | 0.47     |
| 229  | 2.2      |
| 101  | 100      |
| 102  | 1000     |

### TOLERANCE CODE

A:  $\pm 0.05\text{pF}$     B:  $\pm 0.1\text{pF}$     C:  $\pm 0.25\text{pF}$     D:  $\pm 0.5\text{pF}$     F:  $\pm 1\%$     G:  $\pm 2\%$   
 J:  $\pm 5\%$     K:  $\pm 10\%$     M:  $\pm 20\%$

### VOLTAGE CODE

B: 4V    C: 6.3V    D: 10V    E: 16V    F: 25V    N: 35V    G: 50V    H: 100V  
 J: 200V    K: 250V    L: 500V    M: 630V    P: 1KV    Q: 2KV    R: 3KV    S: 4KV

### PACKAGING CODE

T: Paper tape reel  $\varnothing 180\text{mm}$  (7")    P: Embossed tape reel  $\varnothing 180\text{mm}$  (7")  
 N: Paper tape reel  $\varnothing 250\text{mm}$  (10")    D: Embossed tape reel  $\varnothing 250\text{mm}$  (10")  
 A: Paper tape reel  $\varnothing 330\text{mm}$  (13")    E: Embossed tape reel  $\varnothing 330\text{mm}$  (13")  
 W: Special Packing

### Application Code

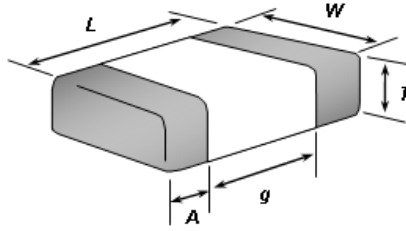
S: Standard    Q: High Q/Low ESR    F: Microwave    A: Automotive Infotainment with AEC-Q200

### Thickness Code

| Code    | Thick (mm)     | Code | Thick(mm) | Code | Thick (mm) | Code | Thick (mm) |
|---------|----------------|------|-----------|------|------------|------|------------|
| (blank) | Standard Thick | M    | 0.70      | G    | 1.25       | S    | 1.90       |
| Z       | 0.20           | D    | 0.80      | H    | 1.50       | --   | --         |
| A       | 0.30           | E    | 0.85      | L    | 1.60       | --   | --         |
| Q       | 0.45           | I    | 0.95      | N    | 2.00       | --   | --         |
| B       | 0.50           | J    | 1.00      | P    | 2.50       | --   | --         |
| C       | 0.60           | F    | 1.15      | R    | 3.20       | --   | --         |

## General Purpose

■ External Dimensions



| TYPE            |             | Dimension (mm) |             |          |         |             |
|-----------------|-------------|----------------|-------------|----------|---------|-------------|
| Size (EIA Size) | Kind        | L (Length)     | W (Width)   | T (Max.) | g (Min) | A (Min/Max) |
| C0603 (0201)    | Standard    | 0.6 ± 0.03     | 0.30 ± 0.03 | 0.33     | 0.15    | 0.10 / 0.20 |
|                 | Special (1) | 0.6 ± 0.05     | 0.30 ± 0.05 | 0.35     |         |             |
|                 | Special (2) | 0.6 ± 0.09     | 0.30 ± 0.09 | 0.39     |         | 0.10 / 0.25 |
| C1005 (0402)    | Standard    | 1.0 ± 0.05     | 0.50 ± 0.05 | 0.55     | 0.30    | 0.15 / 0.35 |
|                 | Special (1) | 1.0 ± 0.10     | 0.50 ± 0.10 | 0.60     |         |             |
|                 | Special (2) | 1.0 ± 0.15     | 0.50 ± 0.15 | 0.65     |         |             |
| C1608 (0603)    | Standard    | 1.0 ± 0.20     | 0.50 ± 0.20 | 0.70     | 0.50    | 0.25 / 0.65 |
|                 | Special (1) | 1.6 ± 0.10     | 0.80 ± 0.10 | 0.90     |         |             |
|                 | Special (2) | 1.6 ± 0.15     | 0.80 ± 0.15 | 0.95     |         |             |
| C2012 (0805)    | Standard    | 1.6 ± 0.20     | 0.80 ± 0.20 | 1.00     | 0.70    | 0.25 / 0.75 |
|                 | Special (1) | 1.6 ± 0.25     | 0.80 ± 0.25 | 1.05     |         |             |
|                 | Standard    | 2.0 ± 0.15     | 1.25 ± 0.15 | 1.45     |         |             |
| C3216 (1206)    | Standard    | 2.0 ± 0.20     | 1.25 ± 0.20 | 1.45     | 1.50    | 0.25 / 0.75 |
|                 | Special (1) | 3.2 ± 0.15     | 1.60 ± 0.15 | 1.80     |         |             |
|                 | Special (2) | 3.2 ± 0.20     | 1.60 ± 0.20 | 1.90     |         |             |
| C3225 (1210)    | Standard    | 3.2 ± 0.30     | 1.60 ± 0.30 | 1.90     | 1.50    | 0.3 / 0.90  |
|                 | Special (1) | 3.2 ± 0.30     | 2.50 ± 0.20 | 2.80     |         |             |
|                 | Special (1) | 3.2 ± 0.30     | 2.50 ± 0.30 | 2.80     |         |             |

For special parts, please see the "Part Number & Characteristic" for detail specification.

## ● Class I: Temperature Compensating Type

### ■ Feature

1. Ultra-stable
2. Tight tolerance available
3. Low ESR (Frequency is within 800MHz)
4. Good frequency performance
5. No aging of capacitance
6. RoHS compliant
7. Halogen Free

### ■ Application

1. LC and RC tuned circuit
2. Filtering
3. Timing

### ■ Part Number & Characteristic

#### ● C0603NP0\_S Series (EIA0201)

| RV          | DARFON P/M  | DARFON P/N 2 | Measuring Condition | Capacitance |             | Available Tolerance    | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing |
|-------------|-------------|--------------|---------------------|-------------|-------------|------------------------|-------------|---------------|--------|-----------|------------------|
|             |             |              |                     | Value       | Unit        |                        |             | L/W           | Thick. |           |                  |
| 50V         | C0603NP0208 | C0603NP0208  | 1V, 1MHz            | 0.20        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.25%     | Paper,15Kpcs     |
|             | C0603NP0308 | C0603NP0308  | 1V, 1MHz            | 0.30        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.25%     |                  |
|             | C0603NP0408 | C0603NP0408  | 1V, 1MHz            | 0.40        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.25%     |                  |
|             | C0603NP0508 | C0603NP0508  | 1V, 1MHz            | 0.50        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|             | C0603NP0608 | C0603NP0608  | 1V, 1MHz            | 0.60        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|             | C0603NP0708 | C0603NP0708  | 1V, 1MHz            | 0.70        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|             | C0603NP0758 | C0603NP0758  | 1V, 1MHz            | 0.75        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|             | C0603NP0808 | C0603NP0808  | 1V, 1MHz            | 0.80        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|             | C0603NP0908 | C0603NP0908  | 1V, 1MHz            | 0.90        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|             | C0603NP0109 | C0603NP0109  | 1V, 1MHz            | 1.0         | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|             | C0603NP0119 | C0603NP0119  | 1V, 1MHz            | 1.1         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|             | C0603NP0129 | C0603NP0129  | 1V, 1MHz            | 1.2         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|             | C0603NP0139 | C0603NP0139  | 1V, 1MHz            | 1.3         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|             | C0603NP0159 | C0603NP0159  | 1V, 1MHz            | 1.5         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|             | C0603NP0169 | C0603NP0169  | 1V, 1MHz            | 1.6         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|             | C0603NP0189 | C0603NP0189  | 1V, 1MHz            | 1.8         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|             | C0603NP0209 | C0603NP0209  | 1V, 1MHz            | 2.0         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|             | C0603NP0229 | C0603NP0229  | 1V, 1MHz            | 2.2         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|             | C0603NP0249 | C0603NP0249  | 1V, 1MHz            | 2.4         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.22%     |                  |
|             | C0603NP0279 | C0603NP0279  | 1V, 1MHz            | 2.7         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.22%     |                  |
|             | C0603NP0309 | C0603NP0309  | 1V, 1MHz            | 3.0         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.22%     |                  |
|             | C0603NP0339 | C0603NP0339  | 1V, 1MHz            | 3.3         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|             | C0603NP0359 | C0603NP0359  | 1V, 1MHz            | 3.5         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|             | C0603NP0369 | C0603NP0369  | 1V, 1MHz            | 3.6         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|             | C0603NP0399 | C0603NP0399  | 1V, 1MHz            | 3.9         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|             | C0603NP0409 | C0603NP0409  | 1V, 1MHz            | 4.0         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|             | C0603NP0439 | C0603NP0439  | 1V, 1MHz            | 4.3         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|             | C0603NP0479 | C0603NP0479  | 1V, 1MHz            | 4.7         | pF          | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.20%     |                  |
|             | C0603NP0509 | C0603NP0509  | 1V, 1MHz            | 5.0         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.20%     |                  |
|             | C0603NP0519 | C0603NP0519  | 1V, 1MHz            | 5.1         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.20%     |                  |
|             | C0603NP0569 | C0603NP0569  | 1V, 1MHz            | 5.6         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.20%     |                  |
|             | C0603NP0609 | C0603NP0609  | 1V, 1MHz            | 6.0         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.19%     |                  |
|             | C0603NP0629 | C0603NP0629  | 1V, 1MHz            | 6.2         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.19%     |                  |
|             | C0603NP0689 | C0603NP0689  | 1V, 1MHz            | 6.8         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.19%     |                  |
|             | C0603NP0709 | C0603NP0709  | 1V, 1MHz            | 7.0         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.19%     |                  |
|             | C0603NP0759 | C0603NP0759  | 1V, 1MHz            | 7.5         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.18%     |                  |
|             | C0603NP0809 | C0603NP0809  | 1V, 1MHz            | 8.0         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.18%     |                  |
|             | C0603NP0829 | C0603NP0829  | 1V, 1MHz            | 8.2         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.18%     |                  |
|             | C0603NP0909 | C0603NP0909  | 1V, 1MHz            | 9.0         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.17%     |                  |
|             | C0603NP0919 | C0603NP0919  | 1V, 1MHz            | 9.1         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.17%     |                  |
|             | C0603NP0100 | C0603NP0100  | 1V, 1MHz            | 10          | pF          | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.17%     |                  |
|             | C0603NP0120 | C0603NP0120  | 1V, 1MHz            | 12          | pF          | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.16%     |                  |
|             | C0603NP0150 | C0603NP0150  | 1V, 1MHz            | 15          | pF          | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.14%     |                  |
|             | C0603NP0180 | C0603NP0180  | 1V, 1MHz            | 18          | pF          | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.13%     |                  |
|             | C0603NP0200 | C0603NP0200  | 1V, 1MHz            | 20          | pF          | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.13%     |                  |
| C0603NP0220 | C0603NP0220 | 1V, 1MHz     | 22                  | pF          | ±5%,±2%,±1% | 0.30                   | ±0.03       | ±0.03         | 0.12%  |           |                  |
| C0603NP0240 | C0603NP0240 | 1V, 1MHz     | 24                  | pF          | ±5%         | 0.30                   | ±0.03       | ±0.03         | 0.11%  |           |                  |
| C0603NP0270 | C0603NP0270 | 1V, 1MHz     | 27                  | pF          | ±5%,±2%,±1% | 0.30                   | ±0.03       | ±0.03         | 0.11%  |           |                  |
| C0603NP0300 | C0603NP0300 | 1V, 1MHz     | 30                  | pF          | ±5%,±2%,±1% | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0330 | C0603NP0330 | 1V, 1MHz     | 33                  | pF          | ±5%,±2%,±1% | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0360 | C0603NP0360 | 1V, 1MHz     | 36                  | pF          | ±5%,±2%     | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0390 | C0603NP0390 | 1V, 1MHz     | 39                  | pF          | ±5%,±2%,±1% | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0470 | C0603NP0470 | 1V, 1MHz     | 47                  | pF          | ±5%,±2%,±1% | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0560 | C0603NP0560 | 1V, 1MHz     | 56                  | pF          | ±5%,±2%,±1% | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0620 | C0603NP0620 | 1V, 1MHz     | 62                  | pF          | ±5%,±2%     | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0680 | C0603NP0680 | 1V, 1MHz     | 68                  | pF          | ±5%,±2%,±1% | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0750 | C0603NP0750 | 1V, 1MHz     | 75                  | pF          | ±5%,±2%     | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |

| RV               | DARFON P/N       | DARFON P/N 2    | Measuring Condition | Capacitance |                | Available Tolerance    | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing |
|------------------|------------------|-----------------|---------------------|-------------|----------------|------------------------|-------------|---------------|--------|-----------|------------------|
|                  |                  |                 |                     | Value       | Unit           |                        |             | L/W           | Thick. |           |                  |
| 50V              | C0603NP0820 GTS  | C0603NP0820 GT  | 1V, 1MHz            | 82          | pF             | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.10%     | Paper,15Kpcs     |
|                  | C0603NP0101 GTS  | C0603NP0101 GT  | 1V, 1MHz            | 100         | pF             | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.10%     |                  |
|                  | C0603NP0121 JGTS | C0603NP0121 JGT | 1V, 1MHz            | 120         | pF             | ±5%                    | 0.30        | ±0.03         | ±0.03  | 0.10%     |                  |
|                  | C0603NP0151 JGTS | C0603NP0151 JGT | 1V, 1MHz            | 150         | pF             | ±5%                    | 0.30        | ±0.03         | ±0.03  | 0.10%     |                  |
|                  | C0603NP0181 JGTS | C0603NP0181 JGT | 1V, 1MHz            | 180         | pF             | ±5%                    | 0.30        | ±0.03         | ±0.03  | 0.10%     |                  |
|                  | C0603NP0201 JGTS | C0603NP0201 JGT | 1V, 1MHz            | 200         | pF             | ±5%                    | 0.30        | ±0.03         | ±0.03  | 0.10%     |                  |
|                  | C0603NP0221 JGTS | C0603NP0221 JGT | 1V, 1MHz            | 220         | pF             | ±5%                    | 0.30        | ±0.03         | ±0.03  | 0.10%     |                  |
| 25V              | C0603NP0208 FTS  | C0603NP0208 FT  | 1V, 1MHz            | 0.20        | pF             | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.25%     | Paper,15Kpcs     |
|                  | C0603NP0308 FTS  | C0603NP0308 FT  | 1V, 1MHz            | 0.30        | pF             | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.25%     |                  |
|                  | C0603NP0408 FTS  | C0603NP0408 FT  | 1V, 1MHz            | 0.40        | pF             | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.25%     |                  |
|                  | C0603NP0508 FTS  | C0603NP0508 FT  | 1V, 1MHz            | 0.50        | pF             | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|                  | C0603NP0608 FTS  | C0603NP0608 FT  | 1V, 1MHz            | 0.60        | pF             | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|                  | C0603NP0708 FTS  | C0603NP0708 FT  | 1V, 1MHz            | 0.70        | pF             | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|                  | C0603NP0758 FTS  | C0603NP0758 FT  | 1V, 1MHz            | 0.75        | pF             | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|                  | C0603NP0808 FTS  | C0603NP0808 FT  | 1V, 1MHz            | 0.80        | pF             | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|                  | C0603NP0908 FTS  | C0603NP0908 FT  | 1V, 1MHz            | 0.90        | pF             | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|                  | C0603NP0109 FTS  | C0603NP0109 FT  | 1V, 1MHz            | 1.0         | pF             | ±0.25pF,±0.1pF,±0.05pF | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|                  | C0603NP0129 FTS  | C0603NP0129 FT  | 1V, 1MHz            | 1.2         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.24%     |                  |
|                  | C0603NP0139 FTS  | C0603NP0139 FT  | 1V, 1MHz            | 1.3         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|                  | C0603NP0149 FTS  | C0603NP0149 FT  | 1V, 1MHz            | 1.4         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|                  | C0603NP0159 FTS  | C0603NP0159 FT  | 1V, 1MHz            | 1.5         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|                  | C0603NP0169 FTS  | C0603NP0169 FT  | 1V, 1MHz            | 1.6         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|                  | C0603NP0179 FTS  | C0603NP0179 FT  | 1V, 1MHz            | 1.7         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|                  | C0603NP0189 FTS  | C0603NP0189 FT  | 1V, 1MHz            | 1.8         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|                  | C0603NP0199 FTS  | C0603NP0199 FT  | 1V, 1MHz            | 1.9         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|                  | C0603NP0209 FTS  | C0603NP0209 FT  | 1V, 1MHz            | 2.0         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|                  | C0603NP0229 FTS  | C0603NP0229 FT  | 1V, 1MHz            | 2.2         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.23%     |                  |
|                  | C0603NP0249 FTS  | C0603NP0249 FT  | 1V, 1MHz            | 2.4         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.22%     |                  |
|                  | C0603NP0279 FTS  | C0603NP0279 FT  | 1V, 1MHz            | 2.7         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.22%     |                  |
|                  | C0603NP0309 FTS  | C0603NP0309 FT  | 1V, 1MHz            | 3.0         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.22%     |                  |
|                  | C0603NP0339 FTS  | C0603NP0339 FT  | 1V, 1MHz            | 3.3         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|                  | C0603NP0359 FTS  | C0603NP0359 FT  | 1V, 1MHz            | 3.5         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|                  | C0603NP0369 FTS  | C0603NP0369 FT  | 1V, 1MHz            | 3.6         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|                  | C0603NP0399 FTS  | C0603NP0399 FT  | 1V, 1MHz            | 3.9         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|                  | C0603NP0409 FTS  | C0603NP0409 FT  | 1V, 1MHz            | 4.0         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|                  | C0603NP0439 FTS  | C0603NP0439 FT  | 1V, 1MHz            | 4.3         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.21%     |                  |
|                  | C0603NP0479 FTS  | C0603NP0479 FT  | 1V, 1MHz            | 4.7         | pF             | ±0.25pF,±0.1pF         | 0.30        | ±0.03         | ±0.03  | 0.20%     |                  |
|                  | C0603NP0509 FTS  | C0603NP0509 FT  | 1V, 1MHz            | 5.0         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.20%     |                  |
|                  | C0603NP0519 FTS  | C0603NP0519 FT  | 1V, 1MHz            | 5.1         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.20%     |                  |
|                  | C0603NP0569 FTS  | C0603NP0569 FT  | 1V, 1MHz            | 5.6         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.20%     |                  |
|                  | C0603NP0609 FTS  | C0603NP0609 FT  | 1V, 1MHz            | 6.0         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.19%     |                  |
|                  | C0603NP0629 FTS  | C0603NP0629 FT  | 1V, 1MHz            | 6.2         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.19%     |                  |
|                  | C0603NP0689 FTS  | C0603NP0689 FT  | 1V, 1MHz            | 6.8         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.19%     |                  |
|                  | C0603NP0709 FTS  | C0603NP0709 FT  | 1V, 1MHz            | 7.0         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.19%     |                  |
|                  | C0603NP0759 FTS  | C0603NP0759 FT  | 1V, 1MHz            | 7.5         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.18%     |                  |
|                  | C0603NP0809 FTS  | C0603NP0809 FT  | 1V, 1MHz            | 8.0         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.18%     |                  |
|                  | C0603NP0829 FTS  | C0603NP0829 FT  | 1V, 1MHz            | 8.2         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.18%     |                  |
|                  | C0603NP0909 FTS  | C0603NP0909 FT  | 1V, 1MHz            | 9.0         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.17%     |                  |
|                  | C0603NP0919 FTS  | C0603NP0919 FT  | 1V, 1MHz            | 9.1         | pF             | ±0.5pF,±0.25pF,±0.1pF  | 0.30        | ±0.03         | ±0.03  | 0.17%     |                  |
|                  | C0603NP0100 FTS  | C0603NP0100 FT  | 1V, 1MHz            | 10          | pF             | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.17%     |                  |
|                  | C0603NP0120 FTS  | C0603NP0120 FT  | 1V, 1MHz            | 12          | pF             | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.16%     |                  |
|                  | C0603NP0150 FTS  | C0603NP0150 FT  | 1V, 1MHz            | 15          | pF             | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.14%     |                  |
|                  | C0603NP0160 FTS  | C0603NP0160 FT  | 1V, 1MHz            | 16          | pF             | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.14%     |                  |
|                  | C0603NP0180 FTS  | C0603NP0180 FT  | 1V, 1MHz            | 18          | pF             | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.13%     |                  |
|                  | C0603NP0200 FTS  | C0603NP0200 FT  | 1V, 1MHz            | 20          | pF             | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.13%     |                  |
| C0603NP0220 FTS  | C0603NP0220 FT   | 1V, 1MHz        | 22                  | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.12%  |           |                  |
| C0603NP0240 FTS  | C0603NP0240 FT   | 1V, 1MHz        | 24                  | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.11%  |           |                  |
| C0603NP0270 FTS  | C0603NP0270 FT   | 1V, 1MHz        | 27                  | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.11%  |           |                  |
| C0603NP0300 FTS  | C0603NP0300 FT   | 1V, 1MHz        | 30                  | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0330 FTS  | C0603NP0330 FT   | 1V, 1MHz        | 33                  | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0390 FTS  | C0603NP0390 FT   | 1V, 1MHz        | 39                  | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0470 FTS  | C0603NP0470 FT   | 1V, 1MHz        | 47                  | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0560 FTS  | C0603NP0560 FT   | 1V, 1MHz        | 56                  | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0680 FTS  | C0603NP0680 FT   | 1V, 1MHz        | 68                  | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0820 FTS  | C0603NP0820 FT   | 1V, 1MHz        | 82                  | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0101 FTS  | C0603NP0101 FT   | 1V, 1MHz        | 100                 | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0151 JFTS | C0603NP0151 JFT  | 1V, 1MHz        | 150                 | pF          | ±5%            | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0181 JFTS | C0603NP0181 JFT  | 1V, 1MHz        | 180                 | pF          | ±5%            | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0221 JFTS | C0603NP0221 JFT  | 1V, 1MHz        | 220                 | pF          | ±5%            | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0271 JFTS | C0603NP0271 JFT  | 1V, 1MHz        | 270                 | pF          | ±5%            | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0331 JFTS | C0603NP0331 JFT  | 1V, 1MHz        | 330                 | pF          | ±5%            | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0391 JFTS | C0603NP0391 JFT  | 1V, 1MHz        | 390                 | pF          | ±5%            | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0471 JFTS | C0603NP0471 JFT  | 1V, 1MHz        | 470                 | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0681 JFTS | C0603NP0681 JFT  | 1V, 1MHz        | 680                 | pF          | ±5%            | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0102 JFTS | C0603NP0102 JFT  | 1V, 1MHz        | 1.0                 | nF          | ±5%            | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0279 FTS  | C0603NP0279 FT   | 1V, 1MHz        | 2.7                 | pF          | ±0.25pF,±0.1pF | 0.30                   | ±0.03       | ±0.03         | 0.22%  |           |                  |
| C0603NP0330 FTS  | C0603NP0330 FT   | 1V, 1MHz        | 33                  | pF          | ±5%,±2%,±1%    | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0201 JETS | C0603NP0201 JET  | 1V, 1MHz        | 200                 | pF          | ±5%            | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| C0603NP0221 JETS | C0603NP0221 JET  | 1V, 1MHz        | 220                 | pF          | ±5%            | 0.30                   | ±0.03       | ±0.03         | 0.10%  |           |                  |
| 10V              | C0603NP0330 DTS  | C0603NP0330 DT  | 1V, 1MHz            | 33          | pF             | ±5%,±2%,±1%            | 0.30        | ±0.03         | ±0.03  | 0.10%     | Paper,15Kpcs     |

MLCC  
General Purpose

● C1005NP0\_S Series (EIA0402)

| RV              | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance Value | Unit             | Available Tolerance           | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing |
|-----------------|-----------------|----------------|---------------------|-------------------|------------------|-------------------------------|-------------|---------------|--------|-----------|------------------|
|                 |                 |                |                     |                   |                  |                               |             | L/W           | Thick. |           |                  |
| 50V             | C1005NP0208     | C1005NP0208    | 1V, 1MHz            | 0.20              | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.25%     | Paper, 10Kpcs    |
|                 | C1005NP0308     | C1005NP0308    | 1V, 1MHz            | 0.30              | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.25%     |                  |
|                 | C1005NP0408     | C1005NP0408    | 1V, 1MHz            | 0.40              | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.25%     |                  |
|                 | C1005NP0508     | C1005NP0508    | 1V, 1MHz            | 0.50              | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.24%     |                  |
|                 | C1005NP0608     | C1005NP0608    | 1V, 1MHz            | 0.60              | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.24%     |                  |
|                 | C1005NP0688     | C1005NP0688    | 1V, 1MHz            | 0.68              | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.24%     |                  |
|                 | C1005NP0708     | C1005NP0708    | 1V, 1MHz            | 0.70              | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.24%     |                  |
|                 | C1005NP0808     | C1005NP0808    | 1V, 1MHz            | 0.80              | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.24%     |                  |
|                 | C1005NP0828     | C1005NP0828    | 1V, 1MHz            | 0.82              | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.24%     |                  |
|                 | C1005NP0908     | C1005NP0908    | 1V, 1MHz            | 0.90              | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.24%     |                  |
|                 | C1005NP0109     | C1005NP0109    | 1V, 1MHz            | 1.0               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.24%     |                  |
|                 | C1005NP0129     | C1005NP0129    | 1V, 1MHz            | 1.2               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.24%     |                  |
|                 | C1005NP0139     | C1005NP0139    | 1V, 1MHz            | 1.3               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.23%     |                  |
|                 | C1005NP0159     | C1005NP0159    | 1V, 1MHz            | 1.5               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.23%     |                  |
|                 | C1005NP0169     | C1005NP0169    | 1V, 1MHz            | 1.6               | pF               | ±0.25pF,±0.1pF                | 0.50        | ±0.05         | ±0.05  | 0.23%     |                  |
|                 | C1005NP0189     | C1005NP0189    | 1V, 1MHz            | 1.8               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.23%     |                  |
|                 | C1005NP0209     | C1005NP0209    | 1V, 1MHz            | 2.0               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.23%     |                  |
|                 | C1005NP0229     | C1005NP0229    | 1V, 1MHz            | 2.2               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.23%     |                  |
|                 | C1005NP0249     | C1005NP0249    | 1V, 1MHz            | 2.4               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.22%     |                  |
|                 | C1005NP0259     | C1005NP0259    | 1V, 1MHz            | 2.5               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.22%     |                  |
|                 | C1005NP0279     | C1005NP0279    | 1V, 1MHz            | 2.7               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.22%     |                  |
|                 | C1005NP0309     | C1005NP0309    | 1V, 1MHz            | 3.0               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.22%     |                  |
|                 | C1005NP0339     | C1005NP0339    | 1V, 1MHz            | 3.3               | pF               | ±0.5pF,±0.25pF,±0.1pF,±0.05pF | 0.50        | ±0.05         | ±0.05  | 0.21%     |                  |
|                 | C1005NP0359     | C1005NP0359    | 1V, 1MHz            | 3.5               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.21%     |                  |
|                 | C1005NP0369     | C1005NP0369    | 1V, 1MHz            | 3.6               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.21%     |                  |
|                 | C1005NP0399     | C1005NP0399    | 1V, 1MHz            | 3.9               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.21%     |                  |
|                 | C1005NP0409     | C1005NP0409    | 1V, 1MHz            | 4.0               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.21%     |                  |
|                 | C1005NP0439     | C1005NP0439    | 1V, 1MHz            | 4.3               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.21%     |                  |
|                 | C1005NP0479     | C1005NP0479    | 1V, 1MHz            | 4.7               | pF               | ±0.25pF,±0.1pF,±0.05pF        | 0.50        | ±0.05         | ±0.05  | 0.20%     |                  |
|                 | C1005NP0509     | C1005NP0509    | 1V, 1MHz            | 5.0               | pF               | ±0.5pF,±0.25pF,±0.1pF,±0.05pF | 0.50        | ±0.05         | ±0.05  | 0.20%     |                  |
|                 | C1005NP0519     | C1005NP0519    | 1V, 1MHz            | 5.1               | pF               | ±0.5pF,±0.25pF,±0.1pF         | 0.50        | ±0.05         | ±0.05  | 0.20%     |                  |
|                 | C1005NP0569     | C1005NP0569    | 1V, 1MHz            | 5.6               | pF               | ±0.5pF,±0.25pF,±0.1pF         | 0.50        | ±0.05         | ±0.05  | 0.20%     |                  |
|                 | C1005NP0609     | C1005NP0609    | 1V, 1MHz            | 6.0               | pF               | ±0.5pF,±0.25pF,±0.1pF         | 0.50        | ±0.05         | ±0.05  | 0.19%     |                  |
|                 | C1005NP0629     | C1005NP0629    | 1V, 1MHz            | 6.2               | pF               | ±0.5pF,±0.25pF,±0.1pF         | 0.50        | ±0.05         | ±0.05  | 0.19%     |                  |
|                 | C1005NP0689     | C1005NP0689    | 1V, 1MHz            | 6.8               | pF               | ±0.5pF,±0.25pF,±0.1pF         | 0.50        | ±0.05         | ±0.05  | 0.19%     |                  |
|                 | C1005NP0709     | C1005NP0709    | 1V, 1MHz            | 7.0               | pF               | ±0.5pF,±0.25pF,±0.1pF         | 0.50        | ±0.05         | ±0.05  | 0.19%     |                  |
|                 | C1005NP0759     | C1005NP0759    | 1V, 1MHz            | 7.5               | pF               | ±0.5pF,±0.25pF,±0.1pF         | 0.50        | ±0.05         | ±0.05  | 0.18%     |                  |
|                 | C1005NP0809     | C1005NP0809    | 1V, 1MHz            | 8.0               | pF               | ±0.5pF,±0.25pF,±0.1pF         | 0.50        | ±0.05         | ±0.05  | 0.18%     |                  |
|                 | C1005NP0829     | C1005NP0829    | 1V, 1MHz            | 8.2               | pF               | ±0.5pF,±0.25pF,±0.1pF         | 0.50        | ±0.05         | ±0.05  | 0.18%     |                  |
|                 | C1005NP0909     | C1005NP0909    | 1V, 1MHz            | 9.0               | pF               | ±0.5pF,±0.25pF,±0.1pF         | 0.50        | ±0.05         | ±0.05  | 0.17%     |                  |
|                 | C1005NP0919     | C1005NP0919    | 1V, 1MHz            | 9.1               | pF               | ±0.5pF,±0.25pF,±0.1pF         | 0.50        | ±0.05         | ±0.05  | 0.17%     |                  |
|                 | C1005NP0100     | C1005NP0100    | 1V, 1MHz            | 10                | pF               | ±5%,±2%,±1%                   | 0.50        | ±0.05         | ±0.05  | 0.17%     |                  |
|                 | C1005NP0110     | C1005NP0110    | 1V, 1MHz            | 11                | pF               | ±5%,±2%,±1%                   | 0.50        | ±0.05         | ±0.05  | 0.16%     |                  |
|                 | C1005NP0120     | C1005NP0120    | 1V, 1MHz            | 12                | pF               | ±5%,±2%,±1%                   | 0.50        | ±0.05         | ±0.05  | 0.16%     |                  |
|                 | C1005NP0130JGTS | C1005NP0130JGT | 1V, 1MHz            | 13                | pF               | ±5%                           | 0.50        | ±0.05         | ±0.05  | 0.15%     |                  |
|                 | C1005NP0150     | C1005NP0150    | 1V, 1MHz            | 15                | pF               | ±5%,±2%,±1%                   | 0.50        | ±0.05         | ±0.05  | 0.14%     |                  |
|                 | C1005NP0160     | C1005NP0160    | 1V, 1MHz            | 16                | pF               | ±5%,±2%,±1%                   | 0.50        | ±0.05         | ±0.05  | 0.14%     |                  |
|                 | C1005NP0180     | C1005NP0180    | 1V, 1MHz            | 18                | pF               | ±5%,±2%,±1%                   | 0.50        | ±0.05         | ±0.05  | 0.13%     |                  |
| C1005NP0200     | C1005NP0200     | 1V, 1MHz       | 20                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.13%  |           |                  |
| C1005NP0220     | C1005NP0220     | 1V, 1MHz       | 22                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.12%  |           |                  |
| C1005NP0240     | C1005NP0240     | 1V, 1MHz       | 24                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.11%  |           |                  |
| C1005NP0270     | C1005NP0270     | 1V, 1MHz       | 27                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.11%  |           |                  |
| C1005NP0300     | C1005NP0300     | 1V, 1MHz       | 30                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0330     | C1005NP0330     | 1V, 1MHz       | 33                  | pF                | ±10%,±5%,±2%,±1% | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0360     | C1005NP0360     | 1V, 1MHz       | 36                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0390     | C1005NP0390     | 1V, 1MHz       | 39                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0430     | C1005NP0430     | 1V, 1MHz       | 43                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0470     | C1005NP0470     | 1V, 1MHz       | 47                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0510     | C1005NP0510     | 1V, 1MHz       | 51                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0560     | C1005NP0560     | 1V, 1MHz       | 56                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0620     | C1005NP0620     | 1V, 1MHz       | 62                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0680     | C1005NP0680     | 1V, 1MHz       | 68                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0750     | C1005NP0750     | 1V, 1MHz       | 75                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0820     | C1005NP0820     | 1V, 1MHz       | 82                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0910     | C1005NP0910     | 1V, 1MHz       | 91                  | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0101     | C1005NP0101     | 1V, 1MHz       | 100                 | pF                | ±10%,±5%,±2%,±1% | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0121     | C1005NP0121     | 1V, 1MHz       | 120                 | pF                | ±10%,±5%,±2%,±1% | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0131JGTS | C1005NP0131JGT  | 1V, 1MHz       | 130                 | pF                | ±5%              | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0151     | C1005NP0151     | 1V, 1MHz       | 150                 | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0181     | C1005NP0181     | 1V, 1MHz       | 180                 | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0201     | C1005NP0201     | 1V, 1MHz       | 200                 | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0221     | C1005NP0221     | 1V, 1MHz       | 220                 | pF                | ±5%,±2%,±1%      | 0.50                          | ±0.05       | ±0.05         | 0.10%  |           |                  |

□ Tolerance Code: A=±0.05 pF, B=±0.1pF, C=±0.25pF, D=±0.5pF, F=±1%, G=±2%, J=±5%; Special tolerance on the request.

| RV              | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance    | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing |
|-----------------|-----------------|----------------|---------------------|-------------|------|------------------------|-------------|---------------|--------|-----------|------------------|
|                 |                 |                |                     | Value       | Unit |                        |             | L/W           | Thick. |           |                  |
| 50V             | C1005NP0271□GTS | C1005NP0271□GT | 1V, 1MHz            | 270         | pF   | ±5%,±2%,±1%            | 0.50        | ±0.05         | ±0.05  | 0.10%     | Paper, 10Kpcs    |
|                 | C1005NP0301□GTS | C1005NP0301□GT | 1V, 1MHz            | 300         | pF   | ±5%,±2%                | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0331□GTS | C1005NP0331□GT | 1V, 1MHz            | 330         | pF   | ±5%,±2%                | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0391□GTS | C1005NP0391□GT | 1V, 1MHz            | 390         | pF   | ±5%,±2%,±1%            | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0471□GTS | C1005NP0471□GT | 1V, 1MHz            | 470         | pF   | ±5%,±2%,±1%            | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0561□GTS | C1005NP0561□GT | 1V, 1MHz            | 560         | pF   | ±5%,±2%                | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0681□GTS | C1005NP0681□GT | 1V, 1MHz            | 680         | pF   | ±5%,±2%,±1%            | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0821□GTS | C1005NP0821□GT | 1V, 1MHz            | 820         | pF   | ±5%,±2%                | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
| 25V             | C1005NP0102□GTS | C1005NP0102□GT | 1V, 1MHz            | 1.0         | nF   | ±5%,±2%                | 0.50        | ±0.05         | ±0.05  | 0.10%     | Paper, 10Kpcs    |
|                 | C1005NP0152JGTS | C1005NP0152JGT | 1V, 1kHz            | 1.5         | nF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0208□FTS | C1005NP0208□FT | 1V, 1MHz            | 0.2         | pF   | ±0.25pF,±0.1pF,±0.05pF | 0.50        | ±0.05         | ±0.05  | 0.25%     |                  |
|                 | C1005NP0308□FTS | C1005NP0308□FT | 1V, 1MHz            | 0.3         | pF   | ±0.25pF,±0.1pF,±0.05pF | 0.50        | ±0.05         | ±0.05  | 0.25%     |                  |
|                 | C1005NP0508□FTS | C1005NP0508□FT | 1V, 1MHz            | 0.5         | pF   | ±0.25pF,±0.1pF,±0.05pF | 0.50        | ±0.05         | ±0.05  | 0.24%     |                  |
|                 | C1005NP0169BFTS | C1005NP0169BFT | 1V, 1MHz            | 1.6         | pF   | ±0.1pF                 | 0.50        | ±0.05         | ±0.05  | 0.23%     |                  |
|                 | C1005NP0689□FTS | C1005NP0689□FT | 1V, 1MHz            | 6.8         | pF   | ±0.5pF,±0.25pF,±0.1pF  | 0.50        | ±0.05         | ±0.05  | 0.19%     |                  |
|                 | C1005NP0100JFTS | C1005NP0100JFT | 1V, 1MHz            | 10          | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.17%     |                  |
|                 | C1005NP0120□FTS | C1005NP0120□FT | 1V, 1MHz            | 12          | pF   | ±5%,±2%,±1%            | 0.50        | ±0.05         | ±0.05  | 0.16%     |                  |
|                 | C1005NP0160JFTS | C1005NP0160JFT | 1V, 1MHz            | 16          | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.14%     |                  |
|                 | C1005NP0180KFTS | C1005NP0180KFT | 1V, 1MHz            | 18          | pF   | ±10%                   | 0.50        | ±0.05         | ±0.05  | 0.13%     |                  |
|                 | C1005NP0220JFTS | C1005NP0220JFT | 1V, 1MHz            | 22          | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.12%     |                  |
|                 | C1005NP0240JFTS | C1005NP0240JFT | 1V, 1MHz            | 24          | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.11%     |                  |
|                 | C1005NP0270JFTS | C1005NP0270JFT | 1V, 1MHz            | 27          | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.11%     |                  |
|                 | C1005NP0330□FTS | C1005NP0330□FT | 1V, 1MHz            | 33          | pF   | ±10%, ±5%              | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0470JFTS | C1005NP0470JFT | 1V, 1MHz            | 47          | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0560JFTS | C1005NP0560JFT | 1V, 1MHz            | 56          | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0101JFTS | C1005NP0101JFT | 1V, 1MHz            | 100         | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0201JFTS | C1005NP0201JFT | 1V, 1MHz            | 200         | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0221□FTS | C1005NP0221□FT | 1V, 1MHz            | 220         | pF   | ±10%, ±5%              | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
| C1005NP0271JFTS | C1005NP0271JFT  | 1V, 1MHz       | 270                 | pF          | ±5%  | 0.50                   | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0331JFTS | C1005NP0331JFT  | 1V, 1MHz       | 330                 | pF          | ±5%  | 0.50                   | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0471JFTS | C1005NP0471JFT  | 1V, 1MHz       | 470                 | pF          | ±5%  | 0.50                   | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0561JFTS | C1005NP0561JFT  | 1V, 1MHz       | 560                 | pF          | ±5%  | 0.50                   | ±0.05       | ±0.05         | 0.10%  |           |                  |
| C1005NP0102JFTS | C1005NP0102JFT  | 1V, 1MHz       | 1.0                 | nF          | ±5%  | 0.50                   | ±0.05       | ±0.05         | 0.10%  |           |                  |
| 16V             | C1005NP0109BETS | C1005NP0109BET | 1V, 1MHz            | 1.0         | pF   | ±0.1pF                 | 0.50        | ±0.05         | ±0.05  | 0.24%     | Paper, 10Kpcs    |
|                 | C1005NP0129BETS | C1005NP0129BET | 1V, 1MHz            | 1.2         | pF   | ±0.1pF                 | 0.50        | ±0.05         | ±0.05  | 0.24%     |                  |
|                 | C1005NP0100JETS | C1005NP0100JET | 1V, 1MHz            | 10          | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.17%     |                  |
|                 | C1005NP0150□ETS | C1005NP0150□ET | 1V, 1MHz            | 15          | pF   | ±5%,±2%,±1%            | 0.50        | ±0.05         | ±0.05  | 0.14%     |                  |
|                 | C1005NP0220FETS | C1005NP0220FET | 1V, 1MHz            | 22          | pF   | ±1%                    | 0.50        | ±0.05         | ±0.05  | 0.12%     |                  |
|                 | C1005NP0300JETS | C1005NP0300JET | 1V, 1MHz            | 30          | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
|                 | C1005NP0470□ETS | C1005NP0470□ET | 1V, 1MHz            | 47          | pF   | ±5%,±2%,±1%            | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
| 10V             | C1005NP0331□ETS | C1005NP0331□ET | 1V, 1MHz            | 330         | pF   | ±5%,±2%                | 0.50        | ±0.05         | ±0.05  | 0.10%     | Paper, 10Kpcs    |
|                 | C1005NP0471JETS | C1005NP0471JET | 1V, 1MHz            | 470         | pF   | ±5%                    | 0.50        | ±0.05         | ±0.05  | 0.10%     |                  |
| 10V             | C1005NP0220□DTS | C1005NP0220□DT | 1V, 1MHz            | 22          | pF   | ±5%,±2%,±1%            | 0.50        | ±0.05         | ±0.05  | 0.12%     | Paper, 10Kpcs    |

● C1608NP0\_S Series (EIA0603)

| RV          | DARFON P/N  | DARFON P/N 2 | Measuring Condition | Capacitance |             | Available Tolerance    | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing |
|-------------|-------------|--------------|---------------------|-------------|-------------|------------------------|-------------|---------------|--------|-----------|------------------|
|             |             |              |                     | Value       | Unit        |                        |             | L/W           | Thick. |           |                  |
| 50V         | C1608NP0308 | C1608NP0308  | 1V, 1MHz            | 0.30        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.80        | ±0.10         | ±0.10  | 0.25%     | Paper, 4Kpcs     |
|             | C1608NP0478 | C1608NP0478  | 1V, 1MHz            | 0.47        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.80        | ±0.10         | ±0.10  | 0.24%     |                  |
|             | C1608NP0508 | C1608NP0508  | 1V, 1MHz            | 0.50        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.80        | ±0.10         | ±0.10  | 0.24%     |                  |
|             | C1608NP0568 | C1608NP0568  | 1V, 1MHz            | 0.56        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.80        | ±0.10         | ±0.10  | 0.24%     |                  |
|             | C1608NP0688 | C1608NP0688  | 1V, 1MHz            | 0.68        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.80        | ±0.10         | ±0.10  | 0.24%     |                  |
|             | C1608NP0758 | C1608NP0758  | 1V, 1MHz            | 0.75        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.80        | ±0.10         | ±0.10  | 0.24%     |                  |
|             | C1608NP0828 | C1608NP0828  | 1V, 1MHz            | 0.82        | pF          | ±0.25pF,±0.1pF,±0.05pF | 0.80        | ±0.10         | ±0.10  | 0.24%     |                  |
|             | C1608NP0109 | C1608NP0109  | 1V, 1MHz            | 1.0         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.24%     |                  |
|             | C1608NP0129 | C1608NP0129  | 1V, 1MHz            | 1.2         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.24%     |                  |
|             | C1608NP0159 | C1608NP0159  | 1V, 1MHz            | 1.5         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.23%     |                  |
|             | C1608NP0189 | C1608NP0189  | 1V, 1MHz            | 1.8         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.23%     |                  |
|             | C1608NP0209 | C1608NP0209  | 1V, 1MHz            | 2.0         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.23%     |                  |
|             | C1608NP0229 | C1608NP0229  | 1V, 1MHz            | 2.2         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.23%     |                  |
|             | C1608NP0249 | C1608NP0249  | 1V, 1MHz            | 2.4         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.22%     |                  |
|             | C1608NP0279 | C1608NP0279  | 1V, 1MHz            | 2.7         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.22%     |                  |
|             | C1608NP0309 | C1608NP0309  | 1V, 1MHz            | 3.0         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.22%     |                  |
|             | C1608NP0339 | C1608NP0339  | 1V, 1MHz            | 3.3         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.21%     |                  |
|             | C1608NP0399 | C1608NP0399  | 1V, 1MHz            | 3.9         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.21%     |                  |
|             | C1608NP0409 | C1608NP0409  | 1V, 1MHz            | 4.0         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.21%     |                  |
|             | C1608NP0479 | C1608NP0479  | 1V, 1MHz            | 4.7         | pF          | ±0.25pF,±0.1pF         | 0.80        | ±0.10         | ±0.10  | 0.20%     |                  |
|             | C1608NP0509 | C1608NP0509  | 1V, 1MHz            | 5.0         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.80        | ±0.10         | ±0.10  | 0.20%     |                  |
|             | C1608NP0569 | C1608NP0569  | 1V, 1MHz            | 5.6         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.80        | ±0.10         | ±0.10  | 0.20%     |                  |
|             | C1608NP0609 | C1608NP0609  | 1V, 1MHz            | 6.0         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.80        | ±0.10         | ±0.10  | 0.19%     |                  |
|             | C1608NP0629 | C1608NP0629  | 1V, 1MHz            | 6.2         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.80        | ±0.10         | ±0.10  | 0.19%     |                  |
|             | C1608NP0689 | C1608NP0689  | 1V, 1MHz            | 6.8         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.80        | ±0.10         | ±0.10  | 0.19%     |                  |
|             | C1608NP0709 | C1608NP0709  | 1V, 1MHz            | 7.0         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.80        | ±0.10         | ±0.10  | 0.19%     |                  |
|             | C1608NP0809 | C1608NP0809  | 1V, 1MHz            | 8.0         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.80        | ±0.10         | ±0.10  | 0.18%     |                  |
|             | C1608NP0829 | C1608NP0829  | 1V, 1MHz            | 8.2         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.80        | ±0.10         | ±0.10  | 0.18%     |                  |
|             | C1608NP0909 | C1608NP0909  | 1V, 1MHz            | 9.0         | pF          | ±0.5pF,±0.25pF,±0.1pF  | 0.80        | ±0.10         | ±0.10  | 0.17%     |                  |
|             | C1608NP0100 | C1608NP0100  | 1V, 1MHz            | 10          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.17%     |                  |
|             | C1608NP0110 | C1608NP0110  | 1V, 1MHz            | 11          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.16%     |                  |
|             | C1608NP0120 | C1608NP0120  | 1V, 1MHz            | 12          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.16%     |                  |
|             | C1608NP0150 | C1608NP0150  | 1V, 1MHz            | 15          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.14%     |                  |
|             | C1608NP0160 | C1608NP0160  | 1V, 1MHz            | 16          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.14%     |                  |
|             | C1608NP0180 | C1608NP0180  | 1V, 1MHz            | 18          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.13%     |                  |
|             | C1608NP0200 | C1608NP0200  | 1V, 1MHz            | 20          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.13%     |                  |
|             | C1608NP0220 | C1608NP0220  | 1V, 1MHz            | 22          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.12%     |                  |
|             | C1608NP0240 | C1608NP0240  | 1V, 1MHz            | 24          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.11%     |                  |
|             | C1608NP0270 | C1608NP0270  | 1V, 1MHz            | 27          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.11%     |                  |
|             | C1608NP0300 | C1608NP0300  | 1V, 1MHz            | 30          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.10%     |                  |
|             | C1608NP0330 | C1608NP0330  | 1V, 1MHz            | 33          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.10%     |                  |
|             | C1608NP0360 | C1608NP0360  | 1V, 1MHz            | 36          | pF          | ±5%,±2%,±1%            | 0.80        | ±0.10         | ±0.10  | 0.10%     |                  |
| C1608NP0390 | C1608NP0390 | 1V, 1MHz     | 39                  | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0430 | C1608NP0430 | 1V, 1MHz     | 43                  | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0470 | C1608NP0470 | 1V, 1MHz     | 47                  | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0560 | C1608NP0560 | 1V, 1MHz     | 56                  | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0620 | C1608NP0620 | 1V, 1MHz     | 62                  | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0680 | C1608NP0680 | 1V, 1MHz     | 68                  | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0750 | C1608NP0750 | 1V, 1MHz     | 75                  | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0820 | C1608NP0820 | 1V, 1MHz     | 82                  | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0910 | C1608NP0910 | 1V, 1MHz     | 91                  | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0101 | C1608NP0101 | 1V, 1MHz     | 100                 | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0121 | C1608NP0121 | 1V, 1MHz     | 120                 | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0151 | C1608NP0151 | 1V, 1MHz     | 150                 | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0181 | C1608NP0181 | 1V, 1MHz     | 180                 | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0201 | C1608NP0201 | 1V, 1MHz     | 200                 | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |
| C1608NP0221 | C1608NP0221 | 1V, 1MHz     | 220                 | pF          | ±5%,±2%,±1% | 0.80                   | ±0.10       | ±0.10         | 0.10%  |           |                  |



| RV               | DARFON P/N       | DARFON P/N 2    | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |             | DF (max.) | Standard Packing |
|------------------|------------------|-----------------|---------------------|-------------|------|---------------------|-------------|---------------|-------------|-----------|------------------|
|                  |                  |                 |                     | Value       | Unit |                     |             | L/W           | Thick.      |           |                  |
| 50V              | C1608NP0271□GTS  | C1608NP0271□GT  | 1V, 1MHz            | 270         | pF   | ±5%,±2%             | 0.80        | ±0.10         | ±0.10       | 0.10%     | Paper, 4Kpcs     |
|                  | C1608NP0331□GTS  | C1608NP0331□GT  | 1V, 1MHz            | 330         | pF   | ±5%,±2%             | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0391□GTS  | C1608NP0391□GT  | 1V, 1MHz            | 390         | pF   | ±5%,±2%             | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0431JGTS  | C1608NP0431JGT  | 1V, 1MHz            | 430         | pF   | ±5%                 | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0471□GTS  | C1608NP0471□GT  | 1V, 1MHz            | 470         | pF   | ±5%,±2%             | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0561□GTS  | C1608NP0561□GT  | 1V, 1MHz            | 560         | pF   | ±5%,±2%             | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0681□GTS  | C1608NP0681□GT  | 1V, 1MHz            | 680         | pF   | ±5%,±2%             | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0821□GTS  | C1608NP0821□GT  | 1V, 1MHz            | 820         | pF   | ±5%,±2%             | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0102□GTS  | C1608NP0102□GT  | 1V, 1MHz            | 1.0         | nF   | ±5%,±2%,±1%         | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0122JGTS  | C1608NP0122JGT  | 1V, 1kHz            | 1.2         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0152□GTS  | C1608NP0152□GT  | 1V, 1kHz            | 1.5         | nF   | ±5%,±2%             | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0182JGTS  | C1608NP0182JGT  | 1V, 1kHz            | 1.8         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0222JGTS  | C1608NP0222JGT  | 1V, 1kHz            | 2.2         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0272JGTS  | C1608NP0272JGT  | 1V, 1kHz            | 2.7         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0332JGTS  | C1608NP0332JGT  | 1V, 1kHz            | 3.3         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0392JGTS  | C1608NP0392JGT  | 1V, 1kHz            | 3.9         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0472JGTS  | C1608NP0472JGT  | 1V, 1kHz            | 4.7         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0562JGTS  | C1608NP0562JGT  | 1V, 1kHz            | 5.6         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
| C1608NP0682JGTS  | C1608NP0682JGT   | 1V, 1kHz        | 6.8                 | nF          | ±5%  | 0.80                | +0.15/-0.10 | +0.15/-0.10   | 0.10%       |           |                  |
| C1608NP0822JGTS  | C1608NP0822JGT   | 1V, 1kHz        | 8.2                 | nF          | ±5%  | 0.80                | +0.15/-0.10 | +0.15/-0.10   | 0.10%       |           |                  |
| C1608NP0103JGTS  | C1608NP0103JGT   | 1V, 1kHz        | 10                  | nF          | ±5%  | 0.80                | +0.15/-0.10 | +0.15/-0.10   | 0.10%       |           |                  |
| 25V              | C1608NP0279CFSTS | C1608NP0279CFST | 1V, 1MHz            | 2.7         | pF   | ±0.25pF             | 0.80        | ±0.10         | ±0.10       | 0.22%     | Paper, 4Kpcs     |
|                  | C1608NP0309CFSTS | C1608NP0309CFST | 1V, 1MHz            | 3.0         | pF   | ±0.25pF             | 0.80        | ±0.10         | ±0.10       | 0.22%     |                  |
|                  | C1608NP0609DFSTS | C1608NP0609DFST | 1V, 1MHz            | 6.0         | pF   | ±0.5pF              | 0.80        | ±0.10         | ±0.10       | 0.19%     |                  |
|                  | C1608NP0220JFSTS | C1608NP0220JFST | 1V, 1MHz            | 22          | pF   | ±5%                 | 0.80        | ±0.10         | ±0.10       | 0.12%     |                  |
|                  | C1608NP0470JFSTS | C1608NP0470JFST | 1V, 1MHz            | 47          | pF   | ±5%                 | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0101□FSTS | C1608NP0101□FST | 1V, 1MHz            | 100         | pF   | ±10%,±5%            | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0121□FSTS | C1608NP0121□FST | 1V, 1MHz            | 120         | pF   | ±10%,±5%            | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0471□FSTS | C1608NP0471□FST | 1V, 1MHz            | 470         | pF   | ±10%,±5%            | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0152JFSTS | C1608NP0152JFST | 1V, 1kHz            | 1.5         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0222JFSTS | C1608NP0222JFST | 1V, 1kHz            | 2.2         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0682JFSTS | C1608NP0682JFST | 1V, 1kHz            | 6.8         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0822JFSTS | C1608NP0822JFST | 1V, 1kHz            | 8.2         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
| C1608NP0103JFSTS | C1608NP0103JFST  | 1V, 1kHz        | 10                  | nF          | ±5%  | 0.80                | +0.15/-0.10 | +0.15/-0.10   | 0.10%       |           |                  |
| 16V              | C1608NP0180□ETS  | C1608NP0180□ET  | 1V, 1MHz            | 18          | pF   | ±5%,±2%,±1%         | 0.80        | ±0.10         | ±0.10       | 0.13%     | Paper, 4Kpcs     |
|                  | C1608NP0300JETS  | C1608NP0300JET  | 1V, 1MHz            | 30          | pF   | ±5%                 | 0.80        | ±0.10         | ±0.10       | 0.10%     |                  |
|                  | C1608NP0152JETS  | C1608NP0152JET  | 1V, 1kHz            | 1.5         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0222JETS  | C1608NP0222JET  | 1V, 1kHz            | 2.2         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0272JETS  | C1608NP0272JET  | 1V, 1kHz            | 2.7         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
|                  | C1608NP0332JETS  | C1608NP0332JET  | 1V, 1kHz            | 3.3         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     |                  |
| 10V              | C1608NP0822JETS  | C1608NP0822JET  | 1V, 1kHz            | 8.2         | nF   | ±5%                 | 0.80        | +0.15/-0.10   | +0.15/-0.10 | 0.10%     | Paper, 4Kpcs     |
| 10V              | C1608NP0101□DTS  | C1608NP0101□DT  | 1V, 1MHz            | 100         | pF   | ±10%,±5%            | 0.80        | ±0.10         | ±0.10       | 0.10%     | Paper, 4Kpcs     |

● C2012NP0\_S Series (EIA0805)

| RV               | DARFON P/N        | DARFON P/N 2    | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing |
|------------------|-------------------|-----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|
|                  |                   |                 |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |
| 50V              | C2012NP0100 GTS   | C2012NP0100 GT  | 1V, 1MHz            | 10          | pF   | ±10%,±5%,±2%        | 0.60        | ±0.15         | ±0.15  | 0.17%     | Paper, 4Kpcs     |
|                  | C2012NP0120 GTS   | C2012NP0120 GT  | 1V, 1MHz            | 12          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.16%     |                  |
|                  | C2012NP0150 GTS   | C2012NP0150 GT  | 1V, 1MHz            | 15          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.14%     |                  |
|                  | C2012NP0180 GTS   | C2012NP0180 GT  | 1V, 1MHz            | 18          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.13%     |                  |
|                  | C2012NP0200 GTS   | C2012NP0200 GT  | 1V, 1MHz            | 20          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.13%     |                  |
|                  | C2012NP0220 GTS   | C2012NP0220 GT  | 1V, 1MHz            | 22          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.12%     |                  |
|                  | C2012NP0270 GTS   | C2012NP0270 GT  | 1V, 1MHz            | 27          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.11%     |                  |
|                  | C2012NP0300 GTS   | C2012NP0300 GT  | 1V, 1MHz            | 30          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0330 GTS   | C2012NP0330 GT  | 1V, 1MHz            | 33          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0360 GTS   | C2012NP0360 GT  | 1V, 1MHz            | 36          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0390 GTS   | C2012NP0390 GT  | 1V, 1MHz            | 39          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0470 GTS   | C2012NP0470 GT  | 1V, 1MHz            | 47          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0560 GTS   | C2012NP0560 GT  | 1V, 1MHz            | 56          | pF   | ±10%,±5%            | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0680 GTS   | C2012NP0680 GT  | 1V, 1MHz            | 68          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0820 GTS   | C2012NP0820 GT  | 1V, 1MHz            | 82          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0101 GTS   | C2012NP0101 GT  | 1V, 1MHz            | 100         | pF   | ±5%,±2%,±1%         | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0121 JGTS  | C2012NP0121 JGT | 1V, 1MHz            | 120         | pF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0151 JGTS  | C2012NP0151 JGT | 1V, 1MHz            | 150         | pF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0201 JGTS  | C2012NP0201 JGT | 1V, 1MHz            | 200         | pF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0221 GTS   | C2012NP0221 GT  | 1V, 1MHz            | 220         | pF   | ±5%,±2%,±1%         | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0271 JGTS  | C2012NP0271 JGT | 1V, 1MHz            | 270         | pF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0331 JGTS  | C2012NP0331 JGT | 1V, 1MHz            | 330         | pF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0391 JGTS  | C2012NP0391 JGT | 1V, 1MHz            | 390         | pF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0471 JGTS  | C2012NP0471 JGT | 1V, 1MHz            | 470         | pF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0471 JGTSE |                 | 1V, 1MHz            | 470         | pF   | ±5%                 | 0.85        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0561 JGTS  | C2012NP0561 JGT | 1V, 1MHz            | 560         | pF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0681 JGTS  | C2012NP0681 JGT | 1V, 1MHz            | 680         | pF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0821 JGTS  | C2012NP0821 JGT | 1V, 1MHz            | 820         | pF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0102 JGTS  | C2012NP0102 JGT | 1V, 1MHz            | 1.0         | nF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0122 JGTS  | C2012NP0122 JGT | 1V, 1kHz            | 1.2         | nF   | ±5%                 | 0.85        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0152 JGTS  | C2012NP0152 JGT | 1V, 1kHz            | 1.5         | nF   | ±5%                 | 0.85        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0182 JGTS  | C2012NP0182 JGT | 1V, 1kHz            | 1.8         | nF   | ±5%                 | 0.85        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0222 JGTS  | C2012NP0222 JGT | 1V, 1kHz            | 2.2         | nF   | ±5%                 | 0.85        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0272 JGTS  | C2012NP0272 JGT | 1V, 1kHz            | 2.7         | nF   | ±5%                 | 0.85        | ±0.15         | ±0.15  | 0.10%     |                  |
|                  | C2012NP0272 JGPS  | C2012NP0272 JGP | 1V, 1kHz            | 2.7         | nF   | ±5%                 | 1.25        | ±0.15         | ±0.20  | 0.10%     |                  |
|                  | C2012NP0332 JGTS  | C2012NP0332 JGT | 1V, 1kHz            | 3.3         | nF   | ±5%                 | 0.85        | ±0.15         | ±0.15  | 0.10%     |                  |
| C2012NP0332 JGPS | C2012NP0332 JGP   | 1V, 1kHz        | 3.3                 | nF          | ±5%  | 1.25                | ±0.15       | ±0.20         | 0.10%  |           |                  |
| C2012NP0392 JGTS | C2012NP0392 JGT   | 1V, 1kHz        | 3.9                 | nF          | ±5%  | 0.85                | ±0.15       | ±0.15         | 0.10%  |           |                  |
| C2012NP0392 JGPS | C2012NP0392 JGP   | 1V, 1kHz        | 3.9                 | nF          | ±5%  | 1.25                | ±0.15       | ±0.20         | 0.10%  |           |                  |
| C2012NP0472 JGTS | C2012NP0472 JGT   | 1V, 1kHz        | 4.7                 | nF          | ±5%  | 0.85                | ±0.15       | ±0.15         | 0.10%  |           |                  |
| C2012NP0472 JGPS | C2012NP0472 JGP   | 1V, 1kHz        | 4.7                 | nF          | ±5%  | 1.25                | ±0.15       | ±0.20         | 0.10%  |           |                  |
| C2012NP0562 JGTS | C2012NP0562 JGT   | 1V, 1kHz        | 5.6                 | nF          | ±5%  | 1.25                | ±0.15       | ±0.20         | 0.10%  |           |                  |
| C2012NP0682 JGTS | C2012NP0682 JGT   | 1V, 1kHz        | 6.8                 | nF          | ±5%  | 1.25                | ±0.15       | ±0.20         | 0.10%  |           |                  |
| C2012NP0822 JGTS | C2012NP0822 JGT   | 1V, 1kHz        | 8.2                 | nF          | ±5%  | 1.25                | ±0.15       | ±0.20         | 0.10%  |           |                  |
| C2012NP0103 JGTS | C2012NP0103 JGT   | 1V, 1kHz        | 10                  | nF          | ±5%  | 0.85                | ±0.15       | ±0.10         | 0.10%  |           |                  |
| C2012NP0103 JGPS | C2012NP0103 JGP   | 1V, 1kHz        | 10                  | nF          | ±5%  | 1.25                | ±0.15       | ±0.20         | 0.10%  |           |                  |
| C2012NP0223 JGTS | C2012NP0223 JGT   | 1V, 1kHz        | 22                  | nF          | ±5%  | 1.25                | ±0.15       | ±0.20         | 0.10%  |           |                  |
| 25V              | C2012NP0222 JFTS  | C2012NP0222 JFT | 1V, 1kHz            | 2.2         | nF   | ±5%                 | 0.85        | ±0.15         | ±0.15  | 0.10%     |                  |
| 16V              | C2012NP0100 JETS  | C2012NP0100 JET | 1V, 1MHz            | 10          | pF   | ±5%                 | 0.60        | ±0.15         | ±0.15  | 0.17%     | Paper, 4Kpcs     |
|                  | C2012NP0270 JETS  | C2012NP0270 JET | 1V, 1MHz            | 27          | pF   | ±5%,±2%             | 0.60        | ±0.15         | ±0.15  | 0.11%     |                  |
|                  | C2012NP0332 JEPS  | C2012NP0332 JEP | 1V, 1kHz            | 3.3         | nF   | ±5%                 | 1.25        | ±0.15         | ±0.20  | 0.10%     |                  |

● C3216NP0\_S Series (EIA1206)

| RV  | DARFON P/N       | DARFON P/N 2    | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing |
|-----|------------------|-----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|
|     |                  |                 |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |
| 50V | C3216NP0100 JGTS | C3216NP0100 JGT | 1V, 1MHz            | 10          | pF   | ±5%                 | 0.80        | ±0.15         | ±0.10  | 0.17%     | Paper, 4Kpcs     |
|     | C3216NP0220 JGTS | C3216NP0220 JGT | 1V, 1MHz            | 22          | pF   | ±5%                 | 0.80        | ±0.15         | ±0.10  | 0.12%     |                  |
|     | C3216NP0101 JGTS | C3216NP0101 JGT | 1V, 1MHz            | 100         | pF   | ±5%                 | 0.80        | ±0.15         | ±0.10  | 0.10%     |                  |
|     | C3216NP0221 JGTS | C3216NP0221 JGT | 1V, 1MHz            | 220         | pF   | ±5%                 | 0.80        | ±0.15         | ±0.10  | 0.10%     |                  |
|     | C3216NP0822 JGTS | C3216NP0822 JGT | 1V, 1kHz            | 8.2         | nF   | ±5%                 | 1.25        | ±0.15         | ±0.20  | 0.10%     | Embossed, 3Kpcs  |
|     | C3216NP0103 JGPS | C3216NP0103 JGP | 1V, 1kHz            | 10          | nF   | ±5%                 | 1.25        | ±0.15         | ±0.20  | 0.10%     |                  |
|     | C3216NP0123 JGPS | C3216NP0123 JGP | 1V, 1kHz            | 12          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     | Embossed, 2Kpcs  |
|     | C3216NP0153 JGPS | C3216NP0153 JGP | 1V, 1kHz            | 15          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0183 JGPS | C3216NP0183 JGP | 1V, 1kHz            | 18          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0223 JGPS | C3216NP0223 JGP | 1V, 1kHz            | 22          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0273 JGPS | C3216NP0273 JGP | 1V, 1kHz            | 27          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0333 JGPS | C3216NP0333 JGP | 1V, 1kHz            | 33          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0393 JGPS | C3216NP0393 JGP | 1V, 1kHz            | 39          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0104 JGPS | C3216NP0104 JGP | 1V, 1kHz            | 100         | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
| 25V | C3216NP0104 JFPS | C3216NP0104 JFP | 1V, 1kHz            | 100         | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
| 16V | C3216NP0123 JEPS | C3216NP0123 JEP | 1V, 1kHz            | 12          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0153 JEPS | C3216NP0153 JEP | 1V, 1kHz            | 15          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0183 JEPS | C3216NP0183 JEP | 1V, 1kHz            | 18          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0223 JEPS | C3216NP0223 JEP | 1V, 1kHz            | 22          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0273 JEPS | C3216NP0273 JEP | 1V, 1kHz            | 27          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0333 JEPS | C3216NP0333 JEP | 1V, 1kHz            | 33          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |
|     | C3216NP0393 JEPS | C3216NP0393 JEP | 1V, 1kHz            | 39          | nF   | ±5%                 | 1.60        | ±0.30         | ±0.30  | 0.10%     |                  |

□ Tolerance Code: F=±1%, G=±2%, J=±5%; Special tolerance on the request.

## ● Class II: High Dielectric Constant Type

### ■ Feature

1. High volumetric efficiency
2. High insulation resistance
3. RoHS compliant
4. Halogen Free

### ■ Application

1. Blocking
2. Coupling
3. Timing
4. Bypassing
5. Frequency discriminating
6. Flittering

### ■ Part Number & Characteristic

#### ■ X5R Series

#### ● C0603X5R Series(EIA0201)

| RV              | DARFON P/N      | DARFON P/N 2    | Measuring Condition | Capacitance |            | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|-----------------|-----------------|-----------------|---------------------|-------------|------------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|                 |                 |                 |                     | Value       | Unit       |                     |             | L/W           | Thick. |           |                  |            |
| 50V             | C0603X5R331KGTS | C0603X5R331KGT  | 1V, 1kHz            | 330         | pF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 5.0%      | Paper, 15Kpcs    | (I)        |
|                 | C0603X5R102□GTS | C0603X5R102□GT  | 1V, 1kHz            | 1.0         | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 5.0%      |                  | (II)       |
|                 | C0603X5R103KGTS | C0603X5R103KGT  | 1V, 1kHz            | 10          | nF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 5.0%      |                  | (III)*     |
|                 | C0603X5R104KGTS | C0603X5R104KGT  | 1V, 1kHz            | 100         | nF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)*      |
| 35V             | C0603X5R104KNTS | C0603X5R104KNT  | 1V, 1kHz            | 100         | nF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 10.0%     | Paper, 15Kpcs    | (II)       |
|                 | C0603X5R101KFTS | C0603X5R101KFT  | 1V, 1kHz            | 100         | pF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 5.0%      |                  | (I)        |
|                 | C0603X5R151KFTS | C0603X5R151KFT  | 1V, 1kHz            | 150         | pF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 5.0%      |                  | (I)        |
|                 | C0603X5R221KFTS | C0603X5R221KFT  | 1V, 1kHz            | 220         | pF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 5.0%      |                  | (I)        |
|                 | C0603X5R102□FTS | C0603X5R102□FT  | 1V, 1kHz            | 1.0         | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 5.0%      |                  | (I)        |
|                 | C0603X5R222KFTS | C0603X5R222KFT  | 1V, 1kHz            | 2.2         | nF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 5.0%      |                  | (I)        |
|                 | C0603X5R472KFTS | C0603X5R472KFT  | 1V, 1kHz            | 4.7         | nF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 5.0%      |                  | (I)        |
|                 | C0603X5R682KFTS | C0603X5R682KFT  | 1V, 1kHz            | 6.8         | nF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 5.0%      |                  | (I)        |
|                 | C0603X5R103□FTS | C0603X5R103□FT  | 1V, 1kHz            | 10          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 5.0%      |                  | (II)*      |
|                 | C0603X5R153□FTS | C0603X5R153□FT  | 1V, 1kHz            | 15          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R183□FTS | C0603X5R183□FT  | 1V, 1kHz            | 18          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R223□FTS | C0603X5R223□FT  | 1V, 1kHz            | 22          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R273□FTS | C0603X5R273□FT  | 1V, 1kHz            | 27          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R333□FTS | C0603X5R333□FT  | 1V, 1kHz            | 33          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R393□FTS | C0603X5R393□FT  | 1V, 1kHz            | 39          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | 25V             | C0603X5R473□FTS | C0603X5R473□FT      | 1V, 1kHz    | 47         | nF                  | ±10%, ±20%  | 0.30          | ±0.03  | ±0.03     |                  | 10.0%      |
| C0603X5R563□FTS |                 | C0603X5R563□FT  | 1V, 1kHz            | 56          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     | (II)             |            |
| C0603X5R683□FTS |                 | C0603X5R683□FT  | 1V, 1kHz            | 68          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     | (II)             |            |
| C0603X5R823□FTS |                 | C0603X5R823□FT  | 1V, 1kHz            | 82          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     | (II)             |            |
| C0603X5R104□FTS |                 | C0603X5R104□FT  | 1V, 1kHz            | 100         | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     | (II)             |            |
| C0603X5R224□FTS |                 | C0603X5R224□FT  | 1V, 1kHz            | 220         | nF         | ±10%, ±20%          | 0.30        | ±0.05         | ±0.05  | 10.0%     | (II)*            |            |
| C0603X5R334□FTS |                 | C0603X5R334□FT  | 1V, 1kHz            | 330         | nF         | ±10%, ±20%          | 0.30        | ±0.09         | ±0.09  | 10.0%     | (II)*            |            |
| C0603X5R474□FTS |                 | C0603X5R474□FT  | 1V, 1kHz            | 470         | nF         | ±10%, ±20%          | 0.30        | ±0.09         | ±0.09  | 10.0%     | (II)*            |            |
| C0603X5R102□ETS |                 | C0603X5R102□ET  | 1V, 1kHz            | 1.0         | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 5.0%      | (I)              |            |
| C0603X5R222KET  |                 | C0603X5R222KET  | 1V, 1kHz            | 2.2         | nF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 5.0%      | (I)              |            |
| C0603X5R332KET  |                 | C0603X5R332KET  | 1V, 1kHz            | 3.3         | nF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 5.0%      | (II)             |            |
| C0603X5R472KET  |                 | C0603X5R472KET  | 1V, 1kHz            | 4.7         | nF         | ±10%                | 0.30        | ±0.03         | ±0.03  | 5.0%      | (II)             |            |
| C0603X5R103□ETS |                 | C0603X5R103□ET  | 1V, 1kHz            | 10          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 5.0%      | (II)             |            |
| C0603X5R153□ETS |                 | C0603X5R153□ET  | 1V, 1kHz            | 15          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     | (II)             |            |
| C0603X5R223□ETS |                 | C0603X5R223□ET  | 1V, 1kHz            | 22          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     | (II)             |            |
| C0603X5R273□ETS |                 | C0603X5R273□ET  | 1V, 1kHz            | 27          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     | (II)             |            |
| C0603X5R333□ETS | C0603X5R333□ET  | 1V, 1kHz        | 33                  | nF          | ±10%, ±20% | 0.30                | ±0.03       | ±0.03         | 10.0%  | (II)      |                  |            |
| C0603X5R473□ETS | C0603X5R473□ET  | 1V, 1kHz        | 47                  | nF          | ±10%, ±20% | 0.30                | ±0.03       | ±0.03         | 10.0%  | (II)      |                  |            |
| C0603X5R683□ETS | C0603X5R683□ET  | 1V, 1kHz        | 68                  | nF          | ±10%, ±20% | 0.30                | ±0.05       | ±0.05         | 10.0%  | (II)      |                  |            |
| C0603X5R104□ETS | C0603X5R104□ET  | 1V, 1kHz        | 100                 | nF          | ±10%, ±20% | 0.30                | ±0.03       | ±0.03         | 10.0%  | (II)      |                  |            |
| C0603X5R224□ETS | C0603X5R224□ET  | 1V, 1kHz        | 220                 | nF          | ±10%, ±20% | 0.30                | ±0.05       | ±0.05         | 10.0%  | (II)*     |                  |            |
| C0603X5R334□ETS | C0603X5R334□ET  | 1V, 1kHz        | 330                 | nF          | ±10%, ±20% | 0.30                | ±0.09       | ±0.09         | 10.0%  | (II)*     |                  |            |
| C0603X5R474□ETS | C0603X5R474□ET  | 1V, 1kHz        | 470                 | nF          | ±10%, ±20% | 0.30                | ±0.09       | ±0.09         | 10.0%  | (II)*     |                  |            |
| C0603X5R105METS | C0603X5R105MET  | 0.5V, 1kHz      | 1.0                 | uF          | ±20%       | 0.30                | ±0.09       | ±0.09         | 12.5%  | (II)*     |                  |            |
| 16V             | C0603X5R222□DTS | C0603X5R222□DT  | 1V, 1kHz            | 2.2         | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 7.5%      | Paper, 15Kpcs    | (I)        |
|                 | C0603X5R332□DTS | C0603X5R332□DT  | 1V, 1kHz            | 3.3         | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 7.5%      |                  | (I)        |
|                 | C0603X5R472□DTS | C0603X5R472□DT  | 1V, 1kHz            | 4.7         | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 7.5%      |                  | (I)        |
|                 | C0603X5R562□DTS | C0603X5R562□DT  | 1V, 1kHz            | 5.6         | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 7.5%      |                  | (I)        |
|                 | C0603X5R682□DTS | C0603X5R682□DT  | 1V, 1kHz            | 6.8         | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 7.5%      |                  | (I)        |
|                 | C0603X5R822□DTS | C0603X5R822□DT  | 1V, 1kHz            | 8.2         | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 7.5%      |                  | (I)        |
|                 | C0603X5R103□DTS | C0603X5R103□DT  | 1V, 1kHz            | 10          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 7.5%      |                  | (I)        |
|                 | C0603X5R153□DTS | C0603X5R153□DT  | 1V, 1kHz            | 15          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R223□DTS | C0603X5R223□DT  | 1V, 1kHz            | 22          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R333□DTS | C0603X5R333□DT  | 1V, 1kHz            | 33          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R473□DTS | C0603X5R473□DT  | 1V, 1kHz            | 47          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R563□DTS | C0603X5R563□DT  | 1V, 1kHz            | 56          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R683□DTS | C0603X5R683□DT  | 1V, 1kHz            | 68          | nF         | ±10%, ±20%          | 0.30        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                 | C0603X5R823□DTS | C0603X5R823□DT  | 1V, 1kHz            | 82          | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R104□DTS | C0603X5R104□DT  | 0.5V, 1kHz          | 100         | nF         | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10.0%     |                  | (II)       |
|                 | C0603X5R224□DTS | C0603X5R224□DT  | 1V, 1kHz            | 220         | nF         | ±10%, ±20%          | 0.30        | ±0.05         | ±0.05  | 10.0%     |                  | (II)*      |
| C0603X5R334□DTS | C0603X5R334□DT  | 1V, 1kHz        | 330                 | nF          | ±10%, ±20% | 0.30                | ±0.09       | ±0.09         | 12.5%  | (II)*     |                  |            |
| C0603X5R474□DTS | C0603X5R474□DT  | 1V, 1kHz        | 470                 | nF          | ±10%, ±20% | 0.30                | ±0.09       | ±0.09         | 12.5%  | (II)*     |                  |            |

| RV               | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.)     | Standard Packing | Test Spec. |
|------------------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|---------------|------------------|------------|
|                  |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |               |                  |            |
| 10V              | C0603X5R105 DTS | C0603X5R105 DT | 0.5V, 1kHz          | 1.0         | uF   | ±10%, ±20%          | 0.30        | ±0.09         | ±0.09  | 12.5%         | Paper, 15Kpcs    | (II)*      |
|                  | C0603X5R225MDTS | C0603X5R225MDT | 1V, 1kHz            | 2.2         | uF   | ±20%                | 0.30        | ±0.09         | ±0.09  | 15.0%         |                  | (II)*      |
| 6.3V             | C0603X5R222 CTS | C0603X5R222 CT | 1V, 1kHz            | 2.2         | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         | Paper, 15Kpcs    | (I)        |
|                  | C0603X5R332 CTS | C0603X5R332 CT | 1V, 1kHz            | 3.3         | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (I)        |
|                  | C0603X5R472 CTS | C0603X5R472 CT | 1V, 1kHz            | 4.7         | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (I)        |
|                  | C0603X5R562 CTS | C0603X5R562 CT | 1V, 1kHz            | 5.6         | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (I)        |
|                  | C0603X5R682 CTS | C0603X5R682 CT | 1V, 1kHz            | 6.8         | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (I)        |
|                  | C0603X5R822 CTS | C0603X5R822 CT | 1V, 1kHz            | 8.2         | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (I)        |
|                  | C0603X5R103 CTS | C0603X5R103 CT | 1V, 1kHz            | 10          | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (I)        |
|                  | C0603X5R153 CTS | C0603X5R153 CT | 1V, 1kHz            | 15          | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (II)       |
|                  | C0603X5R223 CTS | C0603X5R223 CT | 1V, 1kHz            | 22          | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (II)       |
|                  | C0603X5R333 CTS | C0603X5R333 CT | 1V, 1kHz            | 33          | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (II)       |
|                  | C0603X5R473 CTS | C0603X5R473 CT | 1V, 1kHz            | 47          | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (II)       |
|                  | C0603X5R563 CTS | C0603X5R563 CT | 1V, 1kHz            | 56          | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (II)       |
|                  | C0603X5R683 CTS | C0603X5R683 CT | 1V, 1kHz            | 68          | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (II)       |
|                  | C0603X5R823 CTS | C0603X5R823 CT | 1V, 1kHz            | 82          | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (II)       |
|                  | C0603X5R104 CTS | C0603X5R104 CT | 0.5V, 1kHz          | 100         | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         |                  | (II)       |
|                  | C0603X5R224 CTS | C0603X5R224 CT | 1V, 1kHz            | 220         | nF   | ±10%, ±20%          | 0.30        | ± 0.05        | ± 0.05 | 10.0%         |                  | (II)*      |
|                  | C0603X5R334 CTS | C0603X5R334 CT | 1V, 1kHz            | 330         | nF   | ±10%, ±20%          | 0.30        | ±0.09         | ±0.09  | 10.0%         |                  | (II)*      |
|                  | C0603X5R474 CTS | C0603X5R474 CT | 1V, 1kHz            | 470         | nF   | ±10%, ±20%          | 0.30        | ±0.09         | ±0.09  | 12.5%         |                  | (II)*      |
|                  | C0603X5R105 CTS | C0603X5R105 CT | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.30        | ±0.05         | ±0.05  | 12.5%         |                  | (II)*      |
|                  | C0603X5R225MCTS | C0603X5R225MCT | 0.5V, 1kHz          | 2.2         | uF   | ±20%                | 0.30        | ±0.09         | ±0.09  | 20.0%         |                  | (II)*      |
| C0603X5R475MCTSB |                 | 0.5V, 1kHz     | 4.7                 | uF          | ±20% | 0.50                | ±0.09       | ±0.05         | 20.0%  | Paper, 10Kpcs | (II)*            |            |
| 4V               | C0603X5R473 BTS | C0603X5R473 BT | 1V, 1kHz            | 47          | nF   | ±10%, ±20%          | 0.30        | ± 0.03        | ± 0.03 | 10.0%         | Paper, 15Kpcs    | (II)       |
|                  | C0603X5R474 BTS | C0603X5R474 BT | 1V, 1kHz            | 470         | nF   | ±10%, ±20%          | 0.30        | ±0.09         | ±0.09  | 12.5%         |                  | (II)*      |
|                  | C0603X5R105 BTS | C0603X5R105 BT | 0.5V, 1kHz          | 1.0         | uF   | ±10%, ±20%          | 0.30        | ±0.05         | ±0.05  | 10.0%         |                  | (II)*      |
|                  | C0603X5R225MBTS | C0603X5R225MBT | 0.5V, 1kHz          | 2.2         | uF   | ±20%                | 0.30        | ±0.09         | ±0.09  | 20.0%         |                  | (II)*      |

● C1005X5R Series (EIA0402)

| RV              | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |            | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|-----------------|-----------------|----------------|---------------------|-------------|------------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|                 |                 |                |                     | Value       | Unit       |                     |             | L/W           | Thick. |           |                  |            |
| 50V             | C1005X5R102KGTS | C1005X5R102KGT | 1V, 1kHz            | 1.0         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | Paper, 10Kpcs    | (I)        |
|                 | C1005X5R682KGTS | C1005X5R682KGT | 1V, 1kHz            | 6.8         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R103KGTS | C1005X5R103KGT | 1V, 1kHz            | 10          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R183KGTS | C1005X5R183KGT | 1V, 1kHz            | 18          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R223KGTS | C1005X5R223KGT | 1V, 1kHz            | 22          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R333KGTS | C1005X5R333KGT | 1V, 1kHz            | 33          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R473KGTS | C1005X5R473KGT | 1V, 1kHz            | 47          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R104□GTS | C1005X5R104□GT | 1V, 1kHz            | 100         | nF         | ±5%, ±10%, ±20%     | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                 | C1005X5R224KGTS | C1005X5R224KGT | 1V, 1kHz            | 220         | nF         | ±10%                | 0.50        | ±0.10         | ±0.10  | 10.0%     |                  | (II)       |
|                 | C1005X5R474□GTS | C1005X5R474□GT | 1V, 1kHz            | 470         | nF         | ±10%, ±20%          | 0.50        | ±0.10         | ±0.10  | 10.0%     |                  | (II)       |
| 35V             | C1005X5R105□GTS | C1005X5R105□GT | 1V, 1kHz            | 1.0         | uF         | ±10%, ±20%          | 0.50        | ±0.20         | ±0.20  | 10.0%     | Paper, 10Kpcs    | (II)       |
|                 | C1005X5R105□NTS | C1005X5R105□NT | 1V, 1kHz            | 1.0         | uF         | ±10%, ±20%          | 0.50        | ±0.10         | ±0.10  | 10.0%     |                  | (III)*     |
| 25V             | C1005X5R225□NTS | C1005X5R225□NT | 1V, 1kHz            | 2.2         | uF         | ±10%, ±20%          | 0.50        | ±0.20         | ±0.20  | 10.0%     | Paper, 10Kpcs    | (III)*     |
|                 | C1005X5R103KF   | C1005X5R103KFT | 1V, 1kHz            | 10          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R223□FTS | C1005X5R223□FT | 1V, 1kHz            | 22          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R333KF   | C1005X5R333KFT | 1V, 1kHz            | 33          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R473KF   | C1005X5R473KFT | 1V, 1kHz            | 47          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R683KF   | C1005X5R683KFT | 1V, 1kHz            | 68          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R104□FTS | C1005X5R104□FT | 1V, 1kHz            | 100         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R224□FTS | C1005X5R224□FT | 1V, 1kHz            | 220         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                 | C1005X5R334□FTS | C1005X5R334□FT | 1V, 1kHz            | 330         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 12.5%     |                  | (II)       |
|                 | C1005X5R394□FTS | C1005X5R394□FT | 1V, 1kHz            | 390         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 12.5%     |                  | (II)       |
|                 | C1005X5R474□FTS | C1005X5R474□FT | 1V, 1kHz            | 470         | nF         | ±10%, ±20%          | 0.50        | ±0.20         | ±0.20  | 12.5%     |                  | (II)       |
|                 | C1005X5R564□FTS | C1005X5R564□FT | 1V, 1kHz            | 560         | nF         | ±10%, ±20%          | 0.50        | ±0.10         | ±0.10  | 12.5%     |                  | (II)*      |
|                 | C1005X5R684□FTS | C1005X5R684□FT | 1V, 1kHz            | 680         | nF         | ±10%, ±20%          | 0.50        | ±0.10         | ±0.10  | 12.5%     |                  | (II)*      |
|                 | C1005X5R105□FTS | C1005X5R105□FT | 1V, 1kHz            | 1.0         | uF         | ±10%, ±20%          | 0.50        | ±0.10         | ±0.10  | 12.5%     |                  | (II)*      |
|                 | C1005X5R225□FTS | C1005X5R225□FT | 1V, 1kHz            | 2.2         | uF         | ±10%, ±20%          | 0.50        | ±0.20         | ±0.20  | 10.0%     |                  | (III)*     |
| 16V             | C1005X5R102KETS | C1005X5R102KET | 1V, 1kHz            | 1.0         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | Paper, 10Kpcs    | (I)        |
|                 | C1005X5R153□ETS | C1005X5R153□ET | 1V, 1kHz            | 15          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R223□ETS | C1005X5R223□ET | 1V, 1kHz            | 22          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R273□ETS | C1005X5R273□ET | 1V, 1kHz            | 27          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R333□ETS | C1005X5R333□ET | 1V, 1kHz            | 33          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R393KETS | C1005X5R393KET | 1V, 1kHz            | 39          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R473□ETS | C1005X5R473□ET | 1V, 1kHz            | 47          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R563□ETS | C1005X5R563□ET | 1V, 1kHz            | 56          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R683□ETS | C1005X5R683□ET | 1V, 1kHz            | 68          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R823□ETS | C1005X5R823□ET | 1V, 1kHz            | 82          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R104□ETS | C1005X5R104□ET | 1V, 1kHz            | 100         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X5R124□ETS | C1005X5R124□ET | 1V, 1kHz            | 120         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (II)       |
|                 | C1005X5R154□ETS | C1005X5R154□ET | 1V, 1kHz            | 150         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (II)       |
|                 | C1005X5R184□ETS | C1005X5R184□ET | 1V, 1kHz            | 180         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (II)       |
|                 | C1005X5R224□ETS | C1005X5R224□ET | 1V, 1kHz            | 220         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                 | C1005X5R334□ETS | C1005X5R334□ET | 1V, 1kHz            | 330         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 12.5%     |                  | (II)       |
|                 | C1005X5R474□ETS | C1005X5R474□ET | 1V, 1kHz            | 470         | nF         | ±10%, ±20%          | 0.50        | ±0.10         | ±0.10  | 12.5%     |                  | (II)       |
|                 | C1005X5R564□ETS | C1005X5R564□ET | 1V, 1kHz            | 560         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 12.5%     |                  | (II)       |
|                 | C1005X5R684□ETS | C1005X5R684□ET | 1V, 1kHz            | 680         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 12.5%     |                  | (II)       |
|                 | C1005X5R105□ETS | C1005X5R105□ET | 1V, 1kHz            | 1.0         | uF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 12.5%     |                  | (II)       |
| C1005X5R225□ETS | C1005X5R225□ET  | 1V, 1kHz       | 2.2                 | uF          | ±10%, ±20% | 0.50                | ±0.20       | ±0.20         | 12.5%  | (III)*    |                  |            |
| C1005X5R475METS | C1005X5R475MET  | 1V, 1kHz       | 4.7                 | uF          | ±20%       | 0.50                | ±0.20       | ±0.20         | 12.5%  | (III)*    |                  |            |
| 10V             | C1005X5R102□DTS | C1005X5R102□DT | 1V, 1kHz            | 1.0         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 5.0%      | Paper, 10Kpcs    | (I)        |
|                 | C1005X5R103KDTS | C1005X5R103KDT | 1V, 1kHz            | 10          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (I)        |
|                 | C1005X5R153□DTS | C1005X5R153□DT | 1V, 1kHz            | 15          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (I)        |
|                 | C1005X5R223□DTS | C1005X5R223□DT | 1V, 1kHz            | 22          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (I)        |
|                 | C1005X5R333□DTS | C1005X5R333□DT | 1V, 1kHz            | 33          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (I)        |
|                 | C1005X5R473□DTS | C1005X5R473□DT | 1V, 1kHz            | 47          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (I)        |
|                 | C1005X5R563□DTS | C1005X5R563□DT | 1V, 1kHz            | 56          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (I)        |
|                 | C1005X5R683□DTS | C1005X5R683□DT | 1V, 1kHz            | 68          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (I)        |
|                 | C1005X5R823□DTS | C1005X5R823□DT | 1V, 1kHz            | 82          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (I)        |
|                 | C1005X5R104□DTS | C1005X5R104□DT | 1V, 1kHz            | 100         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (I)        |
|                 | C1005X5R124□DTS | C1005X5R124□DT | 1V, 1kHz            | 120         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (II)       |
|                 | C1005X5R154□DTS | C1005X5R154□DT | 1V, 1kHz            | 150         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (II)       |
|                 | C1005X5R184□DTS | C1005X5R184□DT | 1V, 1kHz            | 180         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (II)       |
|                 | C1005X5R224□DTS | C1005X5R224□DT | 1V, 1kHz            | 220         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (II)       |
|                 | C1005X5R334□DTS | C1005X5R334□DT | 1V, 1kHz            | 330         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                 | C1005X5R394□DTS | C1005X5R394□DT | 1V, 1kHz            | 390         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                 | C1005X5R474□DTS | C1005X5R474□DT | 1V, 1kHz            | 470         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                 | C1005X5R684□DTS | C1005X5R684□DT | 1V, 1kHz            | 680         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                 | C1005X5R105□DTS | C1005X5R105□DT | 1V, 1kHz            | 1.0         | uF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                 | C1005X5R225□DTS | C1005X5R225□DT | 1V, 1kHz            | 2.2         | uF         | ±10%, ±20%          | 0.50        | ±0.20         | ±0.20  | 10.0%     |                  | (III)*     |
| C1005X5R475□DTS | C1005X5R475□DT  | 1V, 1kHz       | 4.7                 | uF          | ±10%, ±20% | 0.50                | ±0.15       | ±0.15         | 12.5%  | (III)*    |                  |            |
| C1005X5R106MDTS | C1005X5R106MDT  | 0.5V, 1kHz     | 10                  | uF          | ±20%       | 0.50                | ±0.20       | ±0.20         | 12.5%  | (III)*    |                  |            |
| C1005X5R226MDTS | C1005X5R226MDT  | 0.5V, 120Hz    | 22                  | uF          | ±20%       | 0.50                | ±0.30       | ±0.30         | 20.0%  | (III)*    |                  |            |
| 6.3V            | C1005X5R223KCTS | C1005X5R223KCT | 1V, 1kHz            | 22          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 7.5%      | Paper, 10Kpcs    | (I)        |
|                 | C1005X5R473KCTS | C1005X5R473KCT | 1V, 1kHz            | 47          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 7.5%      |                  | (I)        |
|                 | C1005X5R104□CTS | C1005X5R104□CT | 1V, 1kHz            | 100         | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (I)        |

MLCC  
General Purpose

| RV               | DARFON P/N       | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------------------|------------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|                  |                  |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 6.3V             | C1005X5R224□CTS  | C1005X5R224□CT | 1V , 1kHz           | 220         | nF   | ±10% , ±20%         | 0.50        | ±0.05         | ±0.05  | 10.0%     | Paper, 15Kpcs    | (II)       |
|                  | C1005X5R334□CTS  | C1005X5R334□CT | 1V , 1kHz           | 330         | nF   | ±10% , ±20%         | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                  | C1005X5R474□CTS  | C1005X5R474□CT | 1V , 1kHz           | 470         | nF   | ±10% , ±20%         | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                  | C1005X5R684□CTS  | C1005X5R684□CT | 1V , 1kHz           | 680         | nF   | ±10% , ±20%         | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |
|                  | C1005X5R105MCTSA |                | 1V , 1kHz           | 1.0         | uF   | ±20%                | 0.30        | ±0.05         | ±0.03  | 12.5%     | Paper, 15Kpcs    | (II)*      |
|                  | C1005X5R105□CTS  | C1005X5R105□CT | 0.5V , 1kHz         | 1.0         | uF   | ±10% , ±20%         | 0.50        | ±0.05         | ±0.05  | 10.0%     | Paper, 10Kpcs    | (II)       |
|                  | C1005X5R225MCTSA |                | 0.5V , 1kHz         | 2.2         | uF   | ±20%                | 0.30        | ±0.05         | ±0.03  | 10.0%     | Paper, 15Kpcs    | (II)*      |
|                  | C1005X5R225□CTS  | C1005X5R225□CT | 1V , 1kHz           | 2.2         | uF   | ±10% , ±20%         | 0.50        | ±0.20         | ±0.20  | 10.0%     | Paper, 10Kpcs    | (II)*      |
|                  | C1005X5R475MCTSA |                | 0.5V , 1kHz         | 4.7         | uF   | ±20%                | 0.30        | ±0.20         | ±0.03  | 10.0%     | Paper, 15Kpcs    | (II)*      |
|                  | C1005X5R475□CTS  | C1005X5R475□CT | 0.5V , 1kHz         | 4.7         | uF   | ±10% , ±20%         | 0.50        | ±0.15         | ±0.15  | 10.0%     | Paper, 10Kpcs    | (II)*      |
|                  | C1005X5R106MCTSA | C1005X5R106MCT | 0.5V , 1kHz         | 10          | uF   | ±20%                | 0.50        | ±0.20         | ±0.20  | 15.0%     |                  | (II)       |
| C1005X5R226MCTSA | C1005X5R226MCT   | 0.5V , 120Hz   | 22                  | uF          | ±20% | 0.50                | ±0.20       | ±0.20         | 15.0%  |           | (II)*            |            |
| 4V               | C1005X5R105□BTS  | C1005X5R105□BT | 1V , 1kHz           | 1.0         | uF   | ±10% , ±20%         | 0.50        | ±0.05         | ±0.05  | 15.0%     | Paper, 10Kpcs    | (II)       |
|                  | C1005X5R225□BTS  | C1005X5R225□BT | 1V , 1kHz           | 2.2         | uF   | ±10% , ±20%         | 0.50        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |
|                  | C1005X5R225MBTSA |                | 0.5V , 1kHz         | 2.2         | uF   | ±20%                | 0.30        | ±0.05         | ±0.03  | 10.0%     | Paper, 15Kpcs    | (II)       |
|                  | C1005X5R475□BTS  | C1005X5R475□BT | 0.5V , 1kHz         | 4.7         | uF   | ±10% , ±20%         | 0.50        | ±0.15         | ±0.15  | 10.0%     |                  | (II)       |
|                  | C1005X5R106MBTSA | C1005X5R106MBT | 0.5V , 1kHz         | 10          | uF   | ±20%                | 0.50        | ±0.20         | ±0.20  | 15.0%     | Paper, 10Kpcs    | (II)       |
|                  | C1005X5R226MBTSA | C1005X5R226MBT | 0.5V , 120Hz        | 22          | uF   | ±20%                | 0.50        | ±0.20         | ±0.20  | 15.0%     |                  | (II)*      |

● C1608X5R Series (EIA0603)

| RV               | DARFON P/N       | DARFON P/N 2    | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |          | DF (max.) | Standard Packing | Test Spec. |
|------------------|------------------|-----------------|---------------------|-------------|------|---------------------|-------------|---------------|----------|-----------|------------------|------------|
|                  |                  |                 |                     | Value       | Unit |                     |             | L/W           | Thick.   |           |                  |            |
| 50V              | C1608X5R102KGTS  | C1608X5R102KGT  | 1V, 1kHz            | 1.0         | nF   | ±10%                | 0.80        | ±0.10         | ±0.10    | 5.0%      | Paper, 4Kpcs     | (I)        |
|                  | C1608X5R103KGTS  | C1608X5R103KGT  | 1V, 1kHz            | 10          | nF   | ±10%                | 0.80        | ±0.10         | ±0.10    | 5.0%      |                  | (I)        |
|                  | C1608X5R333KGTS  | C1608X5R333KGT  | 1V, 1kHz            | 33          | nF   | ±10%                | 0.80        | ±0.15         | ±0.15    | 5.0%      |                  | (I)        |
|                  | C1608X5R104KGT   | C1608X5R104KGT  | 1V, 1kHz            | 100         | nF   | ±10%                | 0.80        | ±0.15         | ±0.15    | 5.0%      |                  | (II)       |
|                  | C1608X5R224□GTS  | C1608X5R224□GT  | 1V, 1kHz            | 220         | nF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 5.0%      |                  | (II)       |
|                  | C1608X5R474□GTS  | C1608X5R474□GT  | 1V, 1kHz            | 470         | nF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     |                  | (II)       |
|                  | C1608X5R105□GTS  | C1608X5R105□GT  | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.80        | ±0.20         | ±0.20    | 10.0%     |                  | (II)       |
| 35V              | C1608X5R225□GTS  | C1608X5R225□GT  | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 0.80        | ±0.20         | ±0.20    | 10.0%     | (II)             |            |
|                  | C1608X5R105□NTS  | C1608X5R105□NT  | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 10.0%     | (II)             |            |
|                  | C1608X5R225□NTS  | C1608X5R225□NT  | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 10.0%     | (II)*            |            |
|                  | C1608X5R475□NTS  | C1608X5R475□NT  | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 0.80        | ±0.20         | ±0.20    | 10.0%     | (II)*            |            |
| 25V              | C1608X5R106MNTS  | C1608X5R106MNT  | 1V, 1kHz            | 10          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20    | 10.0%     | (II)*            |            |
|                  | C1608X5R104□FTS  | C1608X5R104□FT  | 1V, 1kHz            | 100         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 5.0%      | (I)              |            |
|                  | C1608X5R224□FTS  | C1608X5R224□FT  | 1V, 1kHz            | 220         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 5.0%      | (I)              |            |
|                  | C1608X5R334KFTS  | C1608X5R334KFT  | 1V, 1kHz            | 330         | nF   | ±10%                | 0.80        | ±0.15         | ±0.15    | 7.5%      | (I)              |            |
|                  | C1608X5R474□FTS  | C1608X5R474□FT  | 1V, 1kHz            | 470         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 5.0%      | (II)             |            |
|                  | C1608X5R684KFTS  | C1608X5R684KFT  | 1V, 1kHz            | 680         | nF   | ±10%                | 0.80        | ±0.15         | ±0.15    | 7.5%      | (II)             |            |
|                  | C1608X5R105□FTS  | C1608X5R105□FT  | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     | (II)             |            |
|                  | C1608X5R105□FTSB |                 | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.50        | ±0.10         | +0/-0.10 | 12.5%     | (II)*            |            |
|                  | C1608X5R225□FTS  | C1608X5R225□FT  | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     | (II)             |            |
|                  | C1608X5R335□FTS  | C1608X5R335□FT  | 1V, 1kHz            | 3.3         | uF   | ±10%, ±20%          | 0.80        | ±0.20         | ±0.20    | 10.0%     | (II)             |            |
|                  | C1608X5R475□FTS  | C1608X5R475□FT  | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 0.80        | ±0.20         | ±0.20    | 10.0%     | (II)             |            |
| 16V              | C1608X5R106MFTS  | C1608X5R106MFT  | 1V, 1kHz            | 10          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20    | 10.0%     | (II)             |            |
|                  | C1608X5R104□ETS  | C1608X5R104□ET  | 1V, 1kHz            | 100         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 5.0%      | (I)              |            |
|                  | C1608X5R224□ETS  | C1608X5R224□ET  | 1V, 1kHz            | 220         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 5.0%      | (I)              |            |
|                  | C1608X5R334□ETS  | C1608X5R334□ET  | 1V, 1kHz            | 330         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 5.0%      | (I)              |            |
|                  | C1608X5R474□ETS  | C1608X5R474□ET  | 1V, 1kHz            | 470         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 3.5%      | (II)             |            |
|                  | C1608X5R684□ETS  | C1608X5R684□ET  | 1V, 1kHz            | 680         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 7.5%      | (II)             |            |
|                  | C1608X5R105□ETS  | C1608X5R105□ET  | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 10.0%     | (II)             |            |
|                  | C1608X5R105□ETSB |                 | 0.5V, 1kHz          | 1.0         | uF   | ±10%, ±20%          | 0.50        | ±0.10         | +0/-0.10 | 10.0%     | (II)             |            |
|                  | C1608X5R225□ETS  | C1608X5R225□ET  | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     | (II)             |            |
|                  | C1608X5R335□ETS  | C1608X5R335□ET  | 1V, 1kHz            | 3.3         | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     | (II)*            |            |
| 10V              | C1608X5R475□ETS  | C1608X5R475□ET  | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     | (II)*            |            |
|                  | C1608X5R106METS  | C1608X5R106MET  | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 0.80        | ±0.20         | ±0.20    | 10.0%     | (II)*            |            |
|                  | C1608X5R104□DTS  | C1608X5R104□DT  | 1V, 1kHz            | 100         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 7.5%      | (I)              |            |
|                  | C1608X5R224□DTS  | C1608X5R224□DT  | 1V, 1kHz            | 220         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 7.5%      | (I)              |            |
|                  | C1608X5R334□DTS  | C1608X5R334□DT  | 1V, 1kHz            | 330         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 7.5%      | (I)              |            |
|                  | C1608X5R474□DTS  | C1608X5R474□DT  | 1V, 1kHz            | 470         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 7.5%      | (I)              |            |
|                  | C1608X5R684□DTS  | C1608X5R684□DT  | 1V, 1kHz            | 680         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 7.5%      | (I)              |            |
|                  | C1608X5R105□DTS  | C1608X5R105□DT  | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 7.5%      | (II)             |            |
|                  | C1608X5R105□DTSB |                 | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.50        | ±0.10         | +0/-0.10 | 10.0%     | (II)             |            |
|                  | C1608X5R225□DTS  | C1608X5R225□DT  | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     | (II)             |            |
|                  | C1608X5R225□DTSB |                 | 0.5V, 1kHz          | 2.2         | uF   | ±10%, ±20%          | 0.50        | ±0.10         | +0/-0.10 | 10.0%     | (II)*            |            |
|                  | C1608X5R335□DTS  | C1608X5R335□DT  | 1V, 1kHz            | 3.3         | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     | (II)             |            |
|                  | C1608X5R475□DTS  | C1608X5R475□DT  | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     | (II)             |            |
|                  | C1608X5R475□DTSB |                 | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 0.50        | ±0.20         | ±0.05    | 10.0%     | (II)             |            |
|                  | 6.3V             | C1608X5R106MDTS | C1608X5R106MDT      | 1V, 1kHz    | 10   | uF                  | ±10%, ±20%  | 0.80          | ±0.20    | ±0.20     | 10.0%            | (II)*      |
| C1608X5R226MDTS  |                  | C1608X5R226MDT  | 0.5V, 120Hz         | 22          | uF   | ±20%                | 0.80        | ±0.25         | ±0.25    | 10.0%     | (II)*            |            |
| C1608X5R226MDWS  |                  | C1608X5R226MDW  | 0.5V, 120Hz         | 22          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20    | 10.0%     | Embossed, 4Kpcs  |            |
| C1608X5R104□CTS  |                  | C1608X5R104□CT  | 1V, 1kHz            | 100         | nF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 7.5%      | (I)              |            |
| C1608X5R105□CTS  |                  | C1608X5R105□CT  | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10    | 7.5%      | (II)             |            |
| C1608X5R225□CTS  |                  | C1608X5R225□CT  | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     | (II)             |            |
| C1608X5R475□CTS  |                  | C1608X5R475□CT  | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     | (II)             |            |
| C1608X5R106MCTSB |                  |                 | 0.5V, 1kHz          | 10          | uF   | ±20%                | 0.50        | ±0.10         | ±0.10    | 10.0%     | (II)*            |            |
| C1608X5R106□CTS  |                  | C1608X5R106□CT  | 0.5V, 1kHz          | 10          | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15    | 10.0%     | (II)*            |            |
| C1608X5R226MCTS  |                  | C1608X5R226MCT  | 0.5V, 120Hz         | 22          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20    | 15.0%     | (II)*            |            |
| 4V               | C1608X5R476MCTS  | C1608X5R476MCT  | 0.5V, 120Hz         | 47          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20    | 12.5%     | (II)*            |            |
|                  | C1608X5R106MBTS  | C1608X5R106MBT  | 0.5V, 1kHz          | 10          | uF   | ±20%                | 0.80        | ±0.10         | ±0.10    | 10.0%     | (II)             |            |
|                  | C1608X5R226MBTS  | C1608X5R226MBT  | 0.5V, 120Hz         | 22          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20    | 10.0%     | (II)*            |            |
|                  | C1608X5R476MBTS  | C1608X5R476MBT  | 0.5V, 120Hz         | 47          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20    | 12.5%     | (II)*            |            |

□ Tolerance Code: K=±10%, M=±20% ;Special tolerance on the request.

(II)\* High temperature load life test are applicable in rated voltage \*100%

● C2012X5R Series (EIA0805)

| RV              | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |            | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.)       | Standard Packing | Test Spec. |
|-----------------|-----------------|----------------|---------------------|-------------|------------|---------------------|-------------|---------------|--------|-----------------|------------------|------------|
|                 |                 |                |                     | Value       | Unit       |                     |             | L/W           | Thick. |                 |                  |            |
| 50V             | C2012X5R224KGTS | C2012X5R224KGT | 1V, 1kHz            | 220         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 10.0%           | Paper, 4Kpcs     | (II)       |
|                 | C2012X5R105□GTS | C2012X5R105□GT | 1V, 1kHz            | 1.0         | uF         | ±10%, ±20%          | 0.85        | ±0.15         | ±0.15  | 10.0%           |                  | (II)       |
|                 | C2012X5R225□GTS | C2012X5R225□GT | 1V, 1kHz            | 2.2         | uF         | ±10%, ±20%          | 0.85        | ±0.20         | ±0.15  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R105□GPS | C2012X5R105□GP | 1V, 1kHz            | 1.0         | uF         | ±10%, ±20%          | 1.25        | ±0.15         | ±0.20  | 10.0%           |                  | (II)       |
|                 | C2012X5R225□GPS | C2012X5R225□GP | 1V, 1kHz            | 2.2         | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           |                  | (II)       |
|                 | C2012X5R475□GPS | C2012X5R475□GP | 1V, 1kHz            | 4.7         | uF         | ±10%, ±20%          | 1.25        | ±0.20         | ±0.20  | 10.0%           |                  | (II)       |
| C2012X5R106□GPS | C2012X5R106□GP  | 1V, 1kHz       | 10                  | uF          | ±10%, ±20% | 1.25                | ±0.20       | ±0.20         | 10.0%  | (II)*           |                  |            |
| 35V             | C2012X5R106KNPS | C2012X5R106KNP | 1V, 1kHz            | 10          | uF         | ±10%                | 1.25        | ±0.20         | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)*      |
|                 | C2012X5R226MNWS | C2012X5R226MNV | 0.5V, 120Hz         | 22          | uF         | ±20%                | 1.25        | ±0.20         | ±0.20  | 15.0%           | Embossed, 2Kpcs  | (II)*      |
| 25V             | C2012X5R474□FPS | C2012X5R474□FP | 1V, 1kHz            | 470         | nF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 5.0%            | Embossed, 3Kpcs  | (I)        |
|                 | C2012X5R105□FTS | C2012X5R105□FT | 1V, 1kHz            | 1.0         | uF         | ±10%, ±20%          | 0.85        | ±0.15         | ±0.10  | 10.0%           | Paper, 4Kpcs     | (II)       |
|                 | C2012X5R105□FPS | C2012X5R105□FP | 1V, 1kHz            | 1.0         | uF         | ±10%, ±20%          | 1.25        | ±0.20         | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (I)        |
|                 | C2012X5R225□FTS | C2012X5R225□FT | 1V, 1kHz            | 2.2         | uF         | ±10%, ±20%          | 0.85        | ±0.20         | ±0.10  | 10.0%           | Paper, 4Kpcs     | (II)       |
|                 | C2012X5R225□FPS | C2012X5R225□FP | 1V, 1kHz            | 2.2         | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R475□FTS | C2012X5R475□FT | 1V, 1kHz            | 4.7         | uF         | ±10%, ±20%          | 0.85        | ±0.20         | ±0.10  | 10.0%           | Paper, 4Kpcs     | (II)*      |
|                 | C2012X5R475□FPS | C2012X5R475□FP | 1V, 1kHz            | 4.7         | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R106□FTS | C2012X5R106□FT | 1V, 1kHz            | 10          | uF         | ±10%, ±20%          | 0.85        | ±0.20         | ±0.10  | 12.5%           | Paper, 4Kpcs     | (II)*      |
|                 | C2012X5R106□FPS | C2012X5R106□FP | 1V, 1kHz            | 10          | uF         | ±10%, ±20%          | 1.25        | ±0.20         | ±0.20  | 12.5%           | Embossed, 3Kpcs  | (II)*      |
|                 | C2012X5R226MFP  | C2012X5R226MFP | 0.5V, 120Hz         | 22          | uF         | ±20%                | 1.25        | ±0.20         | ±0.20  | 15.0%           | Embossed, 3Kpcs  | (II)*      |
| C2012X5R226MFW  | C2012X5R226MFW  | 0.5V, 120Hz    | 22                  | uF          | ±20%       | 1.25                | ±0.20       | ±0.20         | 15.0%  | Embossed, 2Kpcs | (II)*            |            |
| 16V             | C2012X5R105□ETS | C2012X5R105□ET | 1V, 1kHz            | 1.0         | uF         | ±10%, ±20%          | 0.85        | ±0.15         | ±0.15  | 10.0%           | Paper, 4Kpcs     | (II)       |
|                 | C2012X5R105□EPS | C2012X5R105□EP | 1V, 1kHz            | 1.0         | uF         | ±10%, ±20%          | 1.25        | ±0.15         | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (I)        |
|                 | C2012X5R225□EPS | C2012X5R225□EP | 1V, 1kHz            | 2.2         | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R335□EPS | C2012X5R335□EP | 1V, 1kHz            | 3.3         | uF         | ±10%, ±20%          | 1.25        | ±0.20         | ±0.20  | 10.0%           |                  | (II)       |
|                 | C2012X5R475□ETS | C2012X5R475□ET | 0.5V, 1kHz          | 4.7         | uF         | ±10%, ±20%          | 0.85        | ±0.20         | ±0.10  | 10.0%           | Paper, 4Kpcs     | (II)       |
|                 | C2012X5R475□EPS | C2012X5R475□EP | 1V, 1kHz            | 4.7         | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R106□ETS | C2012X5R106□ET | 1V, 1kHz            | 10          | uF         | ±10%, ±20%          | 0.85        | ±0.15         | ±0.10  | 10.0%           | Paper, 4Kpcs     | (II)*      |
|                 | C2012X5R106□EPS | C2012X5R106□EP | 1V, 1kHz            | 10          | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)*      |
|                 | C2012X5R226METS | C2012X5R226MET | 0.5V, 120Hz         | 22          | uF         | ±20%                | 0.85        | ±0.20         | ±0.10  | 10.0%           | Paper, 4Kpcs     | (II)*      |
| C2012X5R226□EPS | C2012X5R226□EP  | 0.5V, 120Hz    | 22                  | uF          | ±10%, ±20% | 1.25                | ±0.20       | ±0.20         | 10.0%  | Embossed, 3Kpcs | (II)*            |            |
| 10V             | C2012X5R225□DTS | C2012X5R225□DT | 1V, 1kHz            | 2.2         | uF         | ±10%, ±20%          | 0.85        | ±0.15         | ±0.10  | 10.0%           | Paper, 4Kpcs     | (II)       |
|                 | C2012X5R225□DPS | C2012X5R225□DP | 1V, 1kHz            | 2.2         | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R335□DPS | C2012X5R335□DP | 1V, 1kHz            | 3.3         | uF         | ±10%, ±20%          | 1.25        | ±0.20         | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R475□DPS | C2012X5R475□DP | 1V, 1kHz            | 4.7         | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           |                  | (II)       |
|                 | C2012X5R106□DTS | C2012X5R106□DT | 0.5V, 1kHz          | 10          | uF         | ±10%, ±20%          | 0.85        | ±0.20         | ±0.10  | 10.0%           | Paper, 4Kpcs     | (II)       |
|                 | C2012X5R106□DPS | C2012X5R106□DP | 1V, 1kHz            | 10          | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R226MDTS | C2012X5R226MDT | 0.5V, 120Hz         | 22          | uF         | ±20%                | 0.85        | ±0.20         | ±0.15  | 10.0%           | Paper, 4Kpcs     | (II)*      |
|                 | C2012X5R226MDPS | C2012X5R226MDP | 0.5V, 120Hz         | 22          | uF         | ±20%                | 1.25        | ±0.20         | ±0.20  | 15.0%           | Embossed, 3Kpcs  | (II)*      |
|                 | C2012X5R476MDPS | C2012X5R476MDP | 0.5V, 120Hz         | 47          | uF         | ±20%                | 1.25        | ±0.20         | ±0.20  | 10.0%           |                  | (II)*      |
| 6.3V            | C2012X5R225KCTS | C2012X5R225KCT | 1V, 1kHz            | 2.2         | uF         | ±10%                | 0.85        | ±0.15         | ±0.10  | 10.0%           | Paper, 4Kpcs     | (II)       |
|                 | C2012X5R225□CPS | C2012X5R225□CP | 1V, 1kHz            | 2.2         | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R335□CPS | C2012X5R335□CP | 1V, 1kHz            | 3.3         | uF         | ±10%, ±20%          | 1.25        | ±0.20         | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R475□CPS | C2012X5R475□CP | 1V, 1kHz            | 4.7         | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (I)        |
|                 | C2012X5R106□CTS | C2012X5R106□CT | 0.5V, 1kHz          | 10          | uF         | ±10%, ±20%          | 0.85        | ±0.20         | ±0.15  | 10.0%           | Paper, 4Kpcs     | (II)       |
|                 | C2012X5R106□CPS | C2012X5R106□CP | 1V, 1kHz            | 10          | uF         | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R226MCTS | C2012X5R226MCT | 0.5V, 120Hz         | 22          | uF         | ±20%                | 0.85        | ±0.15         | ±0.15  | 10.0%           | Paper, 4Kpcs     | (II)       |
|                 | C2012X5R226□CPS | C2012X5R226□CP | 0.5V, 120Hz         | 22          | uF         | ±10%, ±20%          | 1.25        | ±0.15         | ±0.15  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R476MCTS | C2012X5R476MCT | 0.5V, 120Hz         | 47          | uF         | ±20%                | 0.85        | ±0.20         | ±0.15  | 10.0%           | Paper, 4Kpcs     | (II)*      |
|                 | C2012X5R476MCPS | C2012X5R476MCP | 0.5V, 120Hz         | 47          | uF         | ±20%                | 1.25        | ±0.20         | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)*      |
| 4V              | C2012X5R226MBPS | C2012X5R226MBP | 0.5V, 120Hz         | 22          | uF         | ±20%                | 1.25        | ±0.15         | ±0.15  | 10.0%           | Embossed, 3Kpcs  | (II)       |
|                 | C2012X5R476MBPS | C2012X5R476MBP | 0.5V, 120Hz         | 47          | uF         | ±20%                | 1.25        | ±0.20         | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)*      |
|                 | C2012X5R107MBPS | C2012X5R107MBP | 0.5V, 120Hz         | 100         | uF         | ±20%                | 1.25        | ±0.20         | ±0.20  | 10.0%           | Embossed, 3Kpcs  | (II)*      |

□ Tolerance Code: K=±10%, M=±20% ;(II)\* High temperature load life test are applicable in rated voltage \*100%



### ● C3216X5R Series (EIA1206)

| RV   | DARFON P/N       | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|------------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                  |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 50V  | C3216X5R105KGPS  | C3216X5R105KGP | 1V, 1kHz            | 1.0         | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 3.5%      | Embossed, 2Kpcs  | (I)        |
|      | C3216X5R225KGT   | C3216X5R225KGT | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 0.85        | ±0.15         | ±0.10  | 10.0%     | Paper, 4Kpcs     | (II)       |
|      | C3216X5R225KGPS  | C3216X5R225KGP | 1V, 1kHz            | 2.2         | uF   | ±10%                | 1.60        | ±0.20         | ±0.20  | 10.0%     | Embossed, 2Kpcs  | (II)       |
|      | C3216X5R475KGT   | C3216X5R475KGT | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 0.85        | ±0.15         | ±0.10  | 10.0%     | Paper, 4Kpcs     | (II)       |
|      | C3216X5R475KGPS  | C3216X5R475KGP | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 10.0%     | Embossed, 2Kpcs  | (II)       |
| 35V  | C3216X5R106KNTS  | C3216X5R106KNT | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 0.85        | ±0.15         | ±0.10  | 10.0%     | Paper, 4Kpcs     | (II)*      |
|      | C3216X5R106KNPS  | C3216X5R106KNP | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 10.0%     | Embossed, 2Kpcs  | (II)       |
| 25V  | C3216X5R105KFTSE |                | 1V, 1kHz            | 1.0         | uF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%      | Paper, 4Kpcs     | (I)        |
|      | C3216X5R105KFPSL | C3216X5R105KFP | 1V, 1kHz            | 1.0         | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 3.5%      | Embossed, 2Kpcs  | (I)        |
|      | C3216X5R225KFPS  | C3216X5R225KFP | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 5.0%      |                  | (I)        |
|      | C3216X5R475KFPS  | C3216X5R475KFP | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 5.0%      | Embossed, 2Kpcs  | (I)        |
|      | C3216X5R106KFPS  | C3216X5R106KFP | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 10.0%     |                  | (II)       |
|      | C3216X5R226MFTSE | C3216X5R226MFT | 0.5V, 120Hz         | 22          | uF   | ±20%                | 0.85        | ±0.20         | ±0.20  | 10.0%     | Paper, 4Kpcs     | (II)*      |
| 16V  | C3216X5R226KFPSL | C3216X5R226KFP | 0.5V, 120Hz         | 22          | uF   | ±10%, ±20%          | 1.60        | ±0.30         | ±0.30  | 10.0%     | Embossed, 2Kpcs  | (II)*      |
|      | C3216X5R225KEPS  | C3216X5R225KEP | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 5.0%      |                  | (I)        |
|      | C3216X5R475KEPS  | C3216X5R475KEP | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 5.0%      | Embossed, 2Kpcs  | (I)        |
|      | C3216X5R106KEPS  | C3216X5R106KEP | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 10.0%     |                  | (II)       |
|      | C3216X5R226KEPS  | C3216X5R226KEP | 0.5V, 120Hz         | 22          | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 10.0%     | Embossed, 2Kpcs  | (II)       |
| 10V  | C3216X5R476MEPS  | C3216X5R476MEP | 0.5V, 120Hz         | 47          | uF   | ±20%                | 1.60        | ±0.30         | ±0.30  | 10.0%     | Embossed, 2Kpcs  | (II)       |
|      | C3216X5R225KDPS  | C3216X5R225KDP | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 7.5%      |                  | (I)        |
|      | C3216X5R475KDPS  | C3216X5R475KDP | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 7.5%      | Embossed, 2Kpcs  | (I)        |
|      | C3216X5R106KDPS  | C3216X5R106KDP | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 1.60        | ±0.30         | ±0.30  | 10.0%     |                  | (II)       |
|      | C3216X5R226MDTSE | C3216X5R226MDT | 0.5V, 120Hz         | 22          | uF   | ±20%                | 0.85        | ±0.20         | ±0.20  | 10.0%     | Paper, 4Kpcs     | (II)*      |
|      | C3216X5R226MDTSE | C3216X5R226MDT | 0.5V, 120Hz         | 22          | uF   | ±10%, ±20%          | 1.60        | ±0.30         | ±0.30  | 10.0%     | Embossed, 2Kpcs  | (II)       |
| 6.3V | C3216X5R476KDPS  | C3216X5R476KDP | 0.5V, 120Hz         | 47          | uF   | ±10%, ±20%          | 1.60        | ±0.30/±0.20   | ±0.20  | 10.0%     | Embossed, 2Kpcs  | (II)       |
|      | C3216X5R106KCPS  | C3216X5R106KCP | 1V, 1kHz            | 10          | uF   | ±10%                | 1.60        | ±0.20         | ±0.30  | 15.0%     |                  | (II)       |
|      | C3216X5R226KCPS  | C3216X5R226KCP | 0.5V, 120Hz         | 22          | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 15.0%     | Embossed, 2Kpcs  | (II)       |
|      | C3216X5R476MCPS  | C3216X5R476MCP | 0.5V, 120Hz         | 47          | uF   | ±20%                | 1.60        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |
|      | C3216X5R107MCPS  | C3216X5R107MCP | 0.5V, 120Hz         | 100         | uF   | ±20%                | 1.60        | ±0.30         | ±0.30  | 15.0%     |                  | (II)       |
| 4V   | C3216X5R226KBPS  | C3216X5R226KBP | 0.5V, 120Hz         | 22          | uF   | ±10%, ±20%          | 1.60        | ±0.20         | ±0.30  | 15.0%     |                  | (II)       |
|      | C3216X5R476MBPS  | C3216X5R476MBP | 0.5V, 120Hz         | 47          | uF   | ±20%                | 1.60        | ±0.20         | ±0.30  | 15.0%     | Embossed, 2Kpcs  | (II)       |
|      | C3216X5R107MBPS  | C3216X5R107MBP | 0.5V, 120Hz         | 100         | uF   | ±20%                | 1.60        | ±0.30         | ±0.30  | 15.0%     |                  | (II)       |
|      | C3216X5R227MBPSL | C3216X5R227MBP | 0.5V, 120Hz         | 220         | uF   | ±20%                | 1.60        | ±0.30         | ±0.30  | 15.0%     |                  | (II)       |

### ● C3225X5R Series (EIA1210)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 50V  | C3225X5R106KGPS | C3225X5R106KGP | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 2.50        | ±0.30/±0.20   | ±0.20  | 5.0%      | Embossed, 1Kpcs  | (II)       |
| 35V  | C3225X5R106KNPS | C3225X5R106KNP | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 2.50        | ±0.30/±0.20   | ±0.20  | 5.0%      | Embossed, 1Kpcs  | (I)        |
| 25V  | C3225X5R475KFWS | C3225X5R475KFW | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 2.00        | ±0.30/±0.20   | ±0.20  | 10.0%     | Embossed, 1Kpcs  | (I)        |
|      | C3225X5R106KFPS | C3225X5R106KFP | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 2.00        | ±0.30/±0.20   | ±0.20  | 10.0%     | Embossed, 2Kpcs  | (I)        |
|      | C3225X5R226KFPS | C3225X5R226KFP | 0.5V, 120Hz         | 22          | uF   | ±10%, ±20%          | 2.50        | ±0.30/±0.20   | ±0.20  | 10.0%     | Embossed, 1Kpcs  | (II)       |
| 16V  | C3225X5R475KEWS | C3225X5R475KEW | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 2.00        | ±0.30/±0.20   | ±0.20  | 5.0%      | Embossed, 1Kpcs  | (I)        |
|      | C3225X5R106KEPS | C3225X5R106KEP | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 2.00        | ±0.30/±0.20   | ±0.20  | 5.0%      | Embossed, 2Kpcs  | (I)        |
|      | C3225X5R226KEPS | C3225X5R226KEP | 0.5V, 120Hz         | 22          | uF   | ±10%, ±20%          | 2.50        | ±0.30/±0.20   | ±0.20  | 10.0%     | Embossed, 1Kpcs  | (II)       |
|      | C3225X5R476KEPS | C3225X5R476KEP | 0.5V, 120Hz         | 47          | uF   | ±10%, ±20%          | 2.50        | ±0.30/±0.20   | ±0.20  | 15.0%     | Embossed, 1Kpcs  | (II)       |
| 10V  | C3225X5R106KDPS | C3225X5R106KDP | 1V, 1kHz            | 10          | uF   | ±10%                | 2.00        | ±0.30/±0.20   | ±0.20  | 5.0%      | Embossed, 2Kpcs  | (I)        |
|      | C3225X5R226KDPS | C3225X5R226KDP | 0.5V, 120Hz         | 22          | uF   | ±10%, ±20%          | 2.50        | ±0.30/±0.20   | ±0.20  | 10.0%     |                  | (II)       |
|      | C3225X5R476KDPS | C3225X5R476KDP | 0.5V, 120Hz         | 47          | uF   | ±10%, ±20%          | 2.50        | ±0.30/±0.20   | ±0.20  | 10.0%     | Embossed, 1Kpcs  | (II)       |
|      | C3225X5R107MDPS | C3225X5R107MDP | 0.5V, 120Hz         | 100         | uF   | ±20%                | 2.50        | ±0.30/±0.20   | ±0.30  | 10.0%     |                  | (II)       |
| 6.3V | C3225X5R226KCPS | C3225X5R226KCP | 0.5V, 120Hz         | 22          | uF   | ±10%, ±20%          | 2.50        | ±0.30/±0.20   | ±0.20  | 10.0%     |                  | (II)       |
|      | C3225X5R476KCPS | C3225X5R476KCP | 0.5V, 120Hz         | 47          | uF   | ±10%, ±20%          | 2.50        | ±0.30/±0.20   | ±0.20  | 15.0%     | Embossed, 1Kpcs  | (II)       |
|      | C3225X5R107MCPS | C3225X5R107MCP | 0.5V, 120Hz         | 100         | uF   | ±20%                | 2.50        | ±0.30         | ±0.30  | 15.0%     |                  | (II)       |

### ● C4532X5R Series (EIA1812)

| RV  | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|-----|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|     |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 50V | C4532X5R225KGPS | C4532X5R225KGP | 1V, 1kHz            | 2.2         | uF   | ±10%                | 1.60        | ±0.30         | ±0.20  | 10.0%     | Embossed, 1Kpcs  | (II)*      |

□ Tolerance Code: K=±10%, M=±20% ;Special tolerance on the request.;

(II)\* High temperature load life test are applicable in rated voltage \*100%

■ X6S Series  
● C0603X6S Series (EIA0201)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 25V  | C0603X6S103KFTS | C0603X6S103KFT | 1V, 1kHz            | 10          | nF   | ±10%                | 0.30        | ±0.03         | ±0.03  | 5%        | Paper, 15Kpcs    | (I)        |
|      | C0603X6S104□FTS | C0603X6S104□FT | 1V, 1kHz            | 100         | nF   | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10%       |                  | (II)*      |
| 16V  | C0603X6S103KETS | C0603X6S103KET | 1V, 1kHz            | 10          | nF   | ±10%                | 0.30        | ±0.03         | ±0.03  | 5%        | Paper, 15Kpcs    | (I)        |
|      | C0603X6S104□ETS | C0603X6S104□ET | 1V, 1kHz            | 100         | nF   | ±10%, ±20%          | 0.30        | ±0.05         | ±0.05  | 10%       |                  | (II)*      |
| 10V  | C0603X6S473KDTS | C0603X6S473KDT | 1V, 1kHz            | 47          | nF   | ±10%                | 0.30        | ±0.03         | ±0.03  | 5%        | Paper, 15Kpcs    | (I)        |
|      | C0603X6S104KDTS | C0603X6S104KDT | 1V, 1kHz            | 100         | nF   | ±10%                | 0.30        | ±0.05         | ±0.05  | 10%       |                  | (II)       |
|      | C0603X6S224□DTS | C0603X6S224□DT | 1V, 1kHz            | 220         | nF   | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10%       |                  | (II)*      |
| 6.3V | C0603X6S103□CTS | C0603X6S103□CT | 1V, 1kHz            | 10          | nF   | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 5%        | Paper, 15Kpcs    | (I)        |
|      | C0603X6S153KCTS | C0603X6S153KCT | 1V, 1kHz            | 15          | nF   | ±10%                | 0.30        | ±0.05         | ±0.05  | 10%       |                  | (II)       |
|      | C0603X6S333□CTS | C0603X6S333□CT | 1V, 1kHz            | 33          | nF   | ±10%, ±20%          | 0.30        | ±0.05         | ±0.05  | 10%       |                  | (II)       |
|      | C0603X6S473□CTS | C0603X6S473□CT | 1V, 1kHz            | 47          | nF   | ±10%, ±20%          | 0.30        | ±0.05         | ±0.05  | 10%       |                  | (II)       |
|      | C0603X6S104□CTS | C0603X6S104□CT | 1V, 1kHz            | 100         | nF   | ±10%, ±20%          | 0.30        | ±0.05         | ±0.05  | 10%       |                  | (II)*      |
|      | C0603X6S224□CTS | C0603X6S224□CT | 0.5V, 1kHz          | 220         | nF   | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10%       |                  | (II)*      |
|      | C0603X6S105MCTS | C0603X6S105MCT | 0.5V, 1kHz          | 1.0         | uF   | ±20%                | 0.30        | ±0.09         | ±0.09  | 10%       |                  | (II)*      |
| 4V   | C0603X6S104□BTS | C0603X6S104□BT | 1V, 1kHz            | 100         | nF   | ±10%, ±20%          | 0.30        | ±0.05         | ±0.05  | 10%       | Paper, 15Kpcs    | (II)       |
|      | C0603X6S224□BTS | C0603X6S224□BT | 0.5V, 1kHz          | 220         | nF   | ±10%, ±20%          | 0.30        | ±0.03         | ±0.03  | 10%       |                  | (II)       |
|      | C0603X6S474MBTS | C0603X6S474MBT | 0.5V, 1kHz          | 470         | nF   | ±20%                | 0.30        | ±0.03         | ±0.03  | 10%       |                  | (II)       |
|      | C0603X6S105MBTS | C0603X6S105MBT | 0.5V, 1kHz          | 1.0         | uF   | ±20%                | 0.30        | ±0.09         | ±0.09  | 10%       |                  | (II)*      |

● C1005X6S Series (EIA0402)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 25V  | C1005X6S104KFTS | C1005X6S104KFT | 1V, 1kHz            | 100         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 10.0%     | Paper, 10Kpcs    | (II)       |
|      | C1005X6S224KFTS | C1005X6S224KFT | 1V, 1kHz            | 220         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 10.0%     |                  | (II)       |
|      | C1005X6S105□FTS | C1005X6S105□FT | 0.5V, 1kHz          | 1.0         | uF   | ±10%, ±20%          | 0.50        | ±0.10         | ±0.10  | 10.0%     |                  | (II)*      |
|      | C1005X6S225□FTS | C1005X6S225□FT | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 0.50        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |
| 16V  | C1005X6S104KETS | C1005X6S104KET | 1V, 1kHz            | 100         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 10.0%     | Paper, 10Kpcs    | (II)       |
|      | C1005X6S224KETS | C1005X6S224KET | 1V, 1kHz            | 220         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 10.0%     |                  | (II)       |
|      | C1005X6S334KETS | C1005X6S334KET | 1V, 1kHz            | 330         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 12.5%     |                  | (II)*      |
|      | C1005X6S474□ETS | C1005X6S474□ET | 1V, 1kHz            | 470         | nF   | ±10%, ±20%          | 0.50        | ±0.10         | ±0.10  | 12.5%     |                  | (II)*      |
|      | C1005X6S105□ETS | C1005X6S105□ET | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.50        | ±0.10         | ±0.10  | 12.5%     |                  | (II)*      |
|      | C1005X6S225□ETS | C1005X6S225□ET | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 0.50        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |
| 10V  | C1005X6S105□DTS | C1005X6S105□DT | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 12.5%     | Paper, 10Kpcs    | (II)*      |
|      | C1005X6S225□DTS | C1005X6S225□DT | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 0.50        | ±0.20         | ±0.20  | 12.5%     |                  | (II)       |
|      | C1005X6S475MDTS | C1005X6S475MDT | 1V, 1kHz            | 4.7         | uF   | ±20%                | 0.50        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |
| 6.3V | C1005X6S224KCTS | C1005X6S224KCT | 1V, 1kHz            | 220         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 10.0%     | Paper, 10Kpcs    | (II)       |
|      | C1005X6S105□CTS | C1005X6S105□CT | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 12.5%     |                  | (II)*      |
|      | C1005X6S225□CTS | C1005X6S225□CT | 0.5V, 1kHz          | 2.2         | uF   | ±10%, ±20%          | 0.50        | ±0.15         | ±0.15  | 12.5%     |                  | (II)*      |
|      | C1005X6S475MCTS | C1005X6S475MCT | 0.5V, 1kHz          | 4.7         | uF   | ±20%                | 0.50        | ±0.15         | ±0.15  | 10.0%     |                  | (II)*      |
|      | C1005X6S106MCTS | C1005X6S106MCT | 0.5V, 1kHz          | 10          | uF   | ±20%                | 0.50        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |
| 4V   | C1005X6S334KBTS | C1005X6S334KBT | 1V, 1kHz            | 330         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 10.0%     | Paper, 10Kpcs    | (II)       |
|      | C1005X6S105□BTS | C1005X6S105□BT | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)*      |
|      | C1005X6S106MBTS | C1005X6S106MBT | 0.5V, 1kHz          | 10          | uF   | ±20%                | 0.50        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |

● C1608X6S Series (EIA0603)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 25V  | C1608X6S225KFTS | C1608X6S225KFT | 1V, 1kHz            | 2.2         | uF   | ±10%                | 0.8         | ±0.20         | ±0.20  | 10.0%     | Paper, 4Kpcs     | (II)*      |
|      | C1608X6S475□FTS | C1608X6S475□FT | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |
| 16V  | C1608X6S105KETS | C1608X6S105KET | 1V, 1kHz            | 1.0         | uF   | ±10%                | 0.80        | ±0.15         | ±0.15  | 10.0%     | Paper, 4Kpcs     | (II)       |
|      | C1608X6S225□ETS | C1608X6S225□ET | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10  | 10.0%     |                  | (II)*      |
|      | C1608X6S475KETS | C1608X6S475KET | 1V, 1kHz            | 4.7         | uF   | ±10%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |
|      | C1608X6S106METS | C1608X6S106MET | 1V, 1kHz            | 10          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |
| 10V  | C1608X6S225KDTS | C1608X6S225KDT | 1V, 1kHz            | 2.2         | uF   | ±10%                | 0.80        | ±0.10         | ±0.10  | 10.0%     | Paper, 4Kpcs     | (II)       |
|      | C1608X6S475□DTS | C1608X6S475□DT | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 0.80        | ±0.15         | ±0.15  | 10.0%     |                  | (II)       |
|      | C1608X6S106MDTS | C1608X6S106MDT | 1V, 1kHz            | 10          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |
| 6.3V | C1608X6S475□CTS | C1608X6S475□CT | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10  | 10.0%     | Paper, 4Kpcs     | (II)*      |
|      | C1608X6S106MCTS | C1608X6S106MCT | 1V, 1kHz            | 10          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |
|      | C1608X6S226MCTS | C1608X6S226MCT | 0.5V, 120Hz         | 22          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |
| 4V   | C1608X6S475□BTS | C1608X6S475□BT | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 0.80        | ±0.10         | ±0.10  | 10.0%     | Paper, 4Kpcs     | (II)*      |
|      | C1608X6S106MBTS | C1608X6S106MBT | 1V, 1kHz            | 10          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |
|      | C1608X6S226MBTS | C1608X6S226MBT | 0.5V, 120Hz         | 22          | uF   | ±20%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |

● C2012X6S Series (EIA0805)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | LW            | Thick. |           |                  |            |
| 50V  | C2012X6S104KGT  | C2012X6S104KGT | 1V, 1kHz            | 100         | nF   | ±10%                | 0.80        | ±0.15         | ±0.10  | 2.5%      | Paper, 4Kpcs     | (I)        |
|      | C2012X6S475KGPS | C2012X6S475KGP | 1V, 1kHz            | 4.7         | uF   | ±10%                | 1.25        | ±0.20         | ±0.20  | 10.0%     | Embossed, 3Kpcs  | (II)       |
| 25V  | C2012X6S225KFPS | C2012X6S225KFP | 1V, 1kHz            | 2.2         | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     | Embossed, 3Kpcs  | (II)*      |
|      | C2012X6S475KFPS | C2012X6S475KFP | 1V, 1kHz            | 4.7         | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 12.5%     |                  | (II)*      |
| 16V  | C2012X6S106KFPS | C2012X6S106KFP | 0.5V, 1kHz          | 10          | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 12.5%     | Embossed, 3Kpcs  | (II)*      |
|      | C2012X6S106KEPS | C2012X6S106KEP | 1V, 1kHz            | 10          | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     |                  | (II)       |
| 10V  | C2012X6S226MEPS | C2012X6S226MEP | 0.5V, 120Hz         | 22          | uF   | ±20%                | 1.25        | ±0.20         | ±0.20  | 10.0%     | Embossed, 3Kpcs  | (II)*      |
|      | C2012X6S106KDPS | C2012X6S106KDP | 1V, 1kHz            | 10          | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     |                  | (II)*      |
| 6.3V | C2012X6S226MDPS | C2012X6S226MDP | 0.5V, 120Hz         | 22          | uF   | ±20%                | 1.25        | ±0.20         | ±0.20  | 10.0%     | Embossed, 3Kpcs  | (II)       |
|      | C2012X6S106□CPS | C2012X6S106□CP | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     |                  | (II)*      |
| 4V   | C2012X6S226MCPS | C2012X6S226MCP | 0.5V, 120Hz         | 22          | uF   | ±20%                | 1.25        | ±0.20         | ±0.20  | 10.0%     | Embossed, 3Kpcs  | (II)*      |
|      | C2012X6S476MCPS | C2012X6S476MCP | 0.5V, 120Hz         | 47          | uF   | ±20%                | 1.25        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |
|      | C2012X6S106□BPS | C2012X6S106□BP | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     |                  | (II)       |
|      | C2012X6S226MBPS | C2012X6S226MBP | 0.5V, 120Hz         | 22          | uF   | ±20%                | 1.25        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |
|      | C2012X6S476MBPS | C2012X6S476MBP | 0.5V, 120Hz         | 47          | uF   | ±20%                | 1.25        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |
|      | C2012X6S107MBPS | C2012X6S107MBP | 0.5V, 120Hz         | 100         | uF   | ±20%                | 1.25        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |

● C3216X6S Series (EIA1206)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | LW            | Thick. |           |                  |            |
| 35V  | C3216X6S106KNPS | C3216X6S106KNP | 1V, 1kHz            | 10          | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 10.0%     | Embossed, 2Kpcs  | (II)*      |
| 25V  | C3216X6S106KFPS | C3216X6S106KFP | 1V, 1kHz            | 10          | uF   | ±10%                | 1.60        | ±0.20         | ±0.20  | 10.0%     | Embossed, 2Kpcs  | (II)       |
|      | C3216X6S226MFPS | C3216X6S226MFP | 0.5V, 120Hz         | 22          | uF   | ±20%                | 1.60        | ±0.30         | ±0.30  | 10.0%     |                  | (II)       |
| 16V  | C3216X6S226MEPS | C3216X6S226MEP | 0.5V, 120Hz         | 22          | uF   | ±20%                | 1.60        | ±0.20         | ±0.20  | 10.0%     | Embossed, 2Kpcs  | (II)       |
| 10V  | C3216X6S226MDPS | C3216X6S226MDP | 0.5V, 120Hz         | 22          | uF   | ±20%                | 1.60        | ±0.20         | ±0.20  | 10.0%     | Embossed, 2Kpcs  | (II)       |
|      | C3216X6S476MDPS | C3216X6S476MDP | 0.5V, 120Hz         | 47          | uF   | ±20%                | 1.60        | ±0.30         | ±0.30  | 10.0%     |                  | (II)       |
| 6.3V | C3216X6S476MCPS | C3216X6S476MCP | 0.5V, 120Hz         | 47          | uF   | ±20%                | 1.60        | ±0.20         | ±0.20  | 10.0%     | Embossed, 2Kpcs  | (II)       |
| 4V   | C3216X6S226MBTS | C3216X6S226MBT | 0.5V, 120Hz         | 22          | uF   | ±20%                | 0.85        | ±0.20         | ±0.10  | 10.0%     | Paper, 4Kpcs     | (II)       |
|      | C3216X6S107MBPS | C3216X6S107MBP | 0.5V, 120Hz         | 100         | uF   | ±20%                | 1.60        | ±0.20         | ±0.20  | 10.0%     | Embossed, 2Kpcs  | (II)       |

● C3225X6S Series (EIA1210)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | LW            | Thick. |           |                  |            |
| 6.3V | C3225X6S107MCPS | C3225X6S107MCP | 0.5V, 120Hz         | 100         | uF   | ±20%                | 2.50        | ±0.30         | ±0.30  | 10.0%     | Embossed, 1Kpcs  | (II)       |

□ Tolerance Code: K=±10%, M=±20% ;Special tolerance on the request.;

(II)\* High temperature load life test are applicable in rated voltage \*100%

MLCC  
General Purpose

- X7R Series
- C0603X7R Series(EIA0201)

| RV              | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |          | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|-----------------|-----------------|----------------|---------------------|-------------|----------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|                 |                 |                |                     | Value       | Unit     |                     |             | L/W           | Thick. |           |                  |            |
| 50V             | C0603X7R101□GTS | C0603X7R101□GT | 1V, 1kHz            | 100         | pF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.0%      | Paper, 15Kpcs    | (I)        |
|                 | C0603X7R121KGT  | C0603X7R121KGT | 1V, 1kHz            | 120         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R151□GTS | C0603X7R151□GT | 1V, 1kHz            | 150         | pF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R181KGT  | C0603X7R181KGT | 1V, 1kHz            | 180         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R221□GTS | C0603X7R221□GT | 1V, 1kHz            | 220         | pF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R271KGT  | C0603X7R271KGT | 1V, 1kHz            | 270         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R331KGT  | C0603X7R331KGT | 1V, 1kHz            | 330         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R391KGT  | C0603X7R391KGT | 1V, 1kHz            | 390         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R471KGT  | C0603X7R471KGT | 1V, 1kHz            | 470         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R561KGT  | C0603X7R561KGT | 1V, 1kHz            | 560         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R681□GTS | C0603X7R681□GT | 1V, 1kHz            | 680         | pF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R821KGT  | C0603X7R821KGT | 1V, 1kHz            | 820         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R102KGT  | C0603X7R102KGT | 1V, 1kHz            | 1.0         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R122KGT  | C0603X7R122KGT | 1V, 1kHz            | 1.2         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R152KGT  | C0603X7R152KGT | 1V, 1kHz            | 1.5         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R182KGT  | C0603X7R182KGT | 1V, 1kHz            | 1.8         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R222KGT  | C0603X7R222KGT | 1V, 1kHz            | 2.2         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.0%      |                  | (I)        |
|                 | C0603X7R332KGT  | C0603X7R332KGT | 1V, 1kHz            | 3.3         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R472KGT  | C0603X7R472KGT | 1V, 1kHz            | 4.7         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R103KGT  | C0603X7R103KGT | 1V, 1kHz            | 10          | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (III)*     |
| 25V             | C0603X7R101KFTS | C0603X7R101KFT | 1V, 1kHz            | 100         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      | Paper, 15Kpcs    | (I)        |
|                 | C0603X7R121KFTS | C0603X7R121KFT | 1V, 1kHz            | 120         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R151KFTS | C0603X7R151KFT | 1V, 1kHz            | 150         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R181KFTS | C0603X7R181KFT | 1V, 1kHz            | 180         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R221□FTS | C0603X7R221□FT | 1V, 1kHz            | 220         | pF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R271KFTS | C0603X7R271KFT | 1V, 1kHz            | 270         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R331KFTS | C0603X7R331KFT | 1V, 1kHz            | 330         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R391KFTS | C0603X7R391KFT | 1V, 1kHz            | 390         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R471□FTS | C0603X7R471□FT | 1V, 1kHz            | 470         | pF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R561KFTS | C0603X7R561KFT | 1V, 1kHz            | 560         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R681KFTS | C0603X7R681KFT | 1V, 1kHz            | 680         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R821□FTS | C0603X7R821□FT | 1V, 1kHz            | 820         | pF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R102KFTS | C0603X7R102KFT | 1V, 1kHz            | 1.0         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R122KFTS | C0603X7R122KFT | 1V, 1kHz            | 1.2         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R152KFTS | C0603X7R152KFT | 1V, 1kHz            | 1.5         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R182KFTS | C0603X7R182KFT | 1V, 1kHz            | 1.8         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R222KFTS | C0603X7R222KFT | 1V, 1kHz            | 2.2         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R332KFTS | C0603X7R332KFT | 1V, 1kHz            | 3.3         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R472KFTS | C0603X7R472KFT | 1V, 1kHz            | 4.7         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R682KFTS | C0603X7R682KFT | 1V, 1kHz            | 6.8         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
| C0603X7R103KFTS | C0603X7R103KFT  | 1V, 1kHz       | 10                  | nF          | ±10%     | 0.30                | ± 0.03      | ± 0.03        | 5.0%   | (I)       |                  |            |
| 16V             | C0603X7R101KETS | C0603X7R101KET | 1V, 1kHz            | 100         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      | Paper, 15Kpcs    | (I)        |
|                 | C0603X7R181KETS | C0603X7R181KET | 1V, 1kHz            | 180         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R201□ETS | C0603X7R201□ET | 1V, 1kHz            | 200         | pF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R221KETS | C0603X7R221KET | 1V, 1kHz            | 220         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R331KETS | C0603X7R331KET | 1V, 1kHz            | 330         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R471KETS | C0603X7R471KET | 1V, 1kHz            | 470         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R561KETS | C0603X7R561KET | 1V, 1kHz            | 560         | pF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R681□ETS | C0603X7R681□ET | 1V, 1kHz            | 680         | pF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R821□ETS | C0603X7R821□ET | 1V, 1kHz            | 820         | pF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R102□ETS | C0603X7R102□ET | 1V, 1kHz            | 1.0         | nF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R152□ETS | C0603X7R152□ET | 1V, 1kHz            | 1.5         | nF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R182KETS | C0603X7R182KET | 1V, 1kHz            | 1.8         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R222KETS | C0603X7R222KET | 1V, 1kHz            | 2.2         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 3.5%      |                  | (I)        |
|                 | C0603X7R272□ETS | C0603X7R272□ET | 1V, 1kHz            | 2.7         | nF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R332KETS | C0603X7R332KET | 1V, 1kHz            | 3.3         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R392KETS | C0603X7R392KET | 1V, 1kHz            | 3.9         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R472KETS | C0603X7R472KET | 1V, 1kHz            | 4.7         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R562KETS | C0603X7R562KET | 1V, 1kHz            | 5.6         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R682KETS | C0603X7R682KET | 1V, 1kHz            | 6.8         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R822KETS | C0603X7R822KET | 1V, 1kHz            | 8.2         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
| C0603X7R103□ETS | C0603X7R103□ET  | 1V, 1kHz       | 10                  | nF          | ±5%,±10% | 0.30                | ± 0.03      | ± 0.03        | 5.0%   | (I)       |                  |            |
| 10V             | C0603X7R221□DTS | C0603X7R221□DT | 1V, 1kHz            | 220         | pF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 5.0%      | Paper, 15Kpcs    | (I)        |
|                 | C0603X7R102KDTS | C0603X7R102KDT | 1V, 1kHz            | 1.0         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R182KDTS | C0603X7R182KDT | 1V, 1kHz            | 1.8         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R222KDTS | C0603X7R222KDT | 1V, 1kHz            | 2.2         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R272□DTS | C0603X7R272□DT | 1V, 1kHz            | 2.7         | nF       | ±5%,±10%            | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R332KDTS | C0603X7R332KDT | 1V, 1kHz            | 3.3         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R392KDTS | C0603X7R392KDT | 1V, 1kHz            | 3.9         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R472KDTS | C0603X7R472KDT | 1V, 1kHz            | 4.7         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R562KDTS | C0603X7R562KDT | 1V, 1kHz            | 5.6         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R682KDTS | C0603X7R682KDT | 1V, 1kHz            | 6.8         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R822KDTS | C0603X7R822KDT | 1V, 1kHz            | 8.2         | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|                 | C0603X7R103KDTS | C0603X7R103KDT | 1V, 1kHz            | 10          | nF       | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 10V  | C0603X7R473KDTS | C0603X7R473KDT | 1V , 1kHz           | 47          | nF   | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      | Paper, 15Kpcs    | (I)        |
|      | C0603X7R104□DTS | C0603X7R104□DT | 1V , 1kHz           | 100         | nF   | ±10%, ±20%          | 0.30        | ± 0.05        | ± 0.05 | 10%       |                  | (II)       |
| 6.3V | C0603X7R222KCTS | C0603X7R222KCT | 1V , 1kHz           | 2.2         | nF   | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      | Paper, 15Kpcs    | (I)        |
|      | C0603X7R332KCTS | C0603X7R332KCT | 1V , 1kHz           | 3.3         | nF   | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|      | C0603X7R103KCTS | C0603X7R103KCT | 1V , 1kHz           | 10          | nF   | ±10%                | 0.30        | ± 0.03        | ± 0.03 | 5.0%      |                  | (I)        |
|      | C0603X7R153KCTS | C0603X7R153KCT | 1V , 1kHz           | 15          | nF   | ±10%                | 0.30        | ± 0.05        | ± 0.05 | 10%       |                  | (II)       |
|      | C0603X7R333KCTS | C0603X7R333KCT | 1V , 1kHz           | 33          | nF   | ±10%                | 0.30        | ± 0.05        | ± 0.05 | 10%       |                  | (II)       |
|      | C0603X7R104KCTS | C0603X7R104KCT | 1V , 1kHz           | 100         | nF   | ±10%                | 0.30        | ± 0.05        | ± 0.05 | 10%       |                  | (II)       |
|      | C0603X7R224KCTS | C0603X7R224KCT | 1V , 1kHz           | 220         | nF   | ±10%                | 0.30        | ± 0.05        | ± 0.05 | 12.5%     |                  | (II)*      |

● C1005X7R Series (EIA0402)

| RV              | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |            | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|-----------------|-----------------|----------------|---------------------|-------------|------------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|                 |                 |                |                     | Value       | Unit       |                     |             | L/W           | Thick. |           |                  |            |
| 50V             | C1005X7R101□GTS | C1005X7R101□GT | 1V, 1kHz            | 100         | pF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      | Paper, 10Kpcs    | (I)        |
|                 | C1005X7R121KGT  | C1005X7R121KGT | 1V, 1kHz            | 120         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R151KGT  | C1005X7R151KGT | 1V, 1kHz            | 150         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R181KGT  | C1005X7R181KGT | 1V, 1kHz            | 180         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R201KGT  | C1005X7R201KGT | 1V, 1kHz            | 200         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R221KGT  | C1005X7R221KGT | 1V, 1kHz            | 220         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R271□GTS | C1005X7R271□GT | 1V, 1kHz            | 270         | pF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R301KGT  | C1005X7R301KGT | 1V, 1kHz            | 300         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R331□GTS | C1005X7R331□GT | 1V, 1kHz            | 330         | pF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R391□GTS | C1005X7R391□GT | 1V, 1kHz            | 390         | pF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R471□GTS | C1005X7R471□GT | 1V, 1kHz            | 470         | pF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R561KGT  | C1005X7R561KGT | 1V, 1kHz            | 560         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R681KGT  | C1005X7R681KGT | 1V, 1kHz            | 680         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R751KGT  | C1005X7R751KGT | 1V, 1kHz            | 750         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R821KGT  | C1005X7R821KGT | 1V, 1kHz            | 820         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R102□GTS | C1005X7R102□GT | 1V, 1kHz            | 1.0         | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R122□GTS | C1005X7R122□GT | 1V, 1kHz            | 1.2         | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R152KGT  | C1005X7R152KGT | 1V, 1kHz            | 1.5         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R182KGT  | C1005X7R182KGT | 1V, 1kHz            | 1.8         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R222□GTS | C1005X7R222□GT | 1V, 1kHz            | 2.2         | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R272□GTS | C1005X7R272□GT | 1V, 1kHz            | 2.7         | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R332□GTS | C1005X7R332□GT | 1V, 1kHz            | 3.3         | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R392KGT  | C1005X7R392KGT | 1V, 1kHz            | 3.9         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R472□GTS | C1005X7R472□GT | 1V, 1kHz            | 4.7         | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R562□GTS | C1005X7R562□GT | 1V, 1kHz            | 5.6         | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R682KGT  | C1005X7R682KGT | 1V, 1kHz            | 6.8         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R822KGT  | C1005X7R822KGT | 1V, 1kHz            | 8.2         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R103□GTS | C1005X7R103□GT | 1V, 1kHz            | 10          | nF         | ±5%,±10%, ±20%      | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R123KGT  | C1005X7R123KGT | 1V, 1kHz            | 12          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R153KGT  | C1005X7R153KGT | 1V, 1kHz            | 15          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R183KGT  | C1005X7R183KGT | 1V, 1kHz            | 18          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R223□GTS | C1005X7R223□GT | 1V, 1kHz            | 22          | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
| C1005X7R333KGT  | C1005X7R333KGT  | 1V, 1kHz       | 33                  | nF          | ±10%       | 0.50                | ±0.05       | ±0.05         | 3.5%   | (I)       |                  |            |
| C1005X7R473KGT  | C1005X7R473KGT  | 1V, 1kHz       | 47                  | nF          | ±10%       | 0.50                | ±0.05       | ±0.05         | 10.0%  | (II)      |                  |            |
| C1005X7R683KGT  | C1005X7R683KGT  | 1V, 1kHz       | 68                  | nF          | ±10%       | 0.50                | ±0.10       | ±0.10         | 10.0%  | (II)      |                  |            |
| C1005X7R104□GTS | C1005X7R104□GT  | 1V, 1kHz       | 100                 | nF          | ±10%, ±20% | 0.50                | ±0.10       | ±0.10         | 10.0%  | (II)      |                  |            |
| 35V             | C1005X7R473KNT  | C1005X7R473KNT | 1V, 1kHz            | 47          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 10.0%     | Paper, 10Kpcs    | (II)       |
|                 | C1005X7R101KFTS | C1005X7R101KFT | 1V, 1kHz            | 100         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R121KFTS | C1005X7R121KFT | 1V, 1kHz            | 120         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R151KFTS | C1005X7R151KFT | 1V, 1kHz            | 150         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R181KFTS | C1005X7R181KFT | 1V, 1kHz            | 180         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R221KFTS | C1005X7R221KFT | 1V, 1kHz            | 220         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R271KFTS | C1005X7R271KFT | 1V, 1kHz            | 270         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R331KFTS | C1005X7R331KFT | 1V, 1kHz            | 330         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R391KFTS | C1005X7R391KFT | 1V, 1kHz            | 390         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R471KFTS | C1005X7R471KFT | 1V, 1kHz            | 470         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R561KFTS | C1005X7R561KFT | 1V, 1kHz            | 560         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R681KFTS | C1005X7R681KFT | 1V, 1kHz            | 680         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R821KFTS | C1005X7R821KFT | 1V, 1kHz            | 820         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R102□FTS | C1005X7R102□FT | 1V, 1kHz            | 1.0         | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R122KFTS | C1005X7R122KFT | 1V, 1kHz            | 1.2         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R152KFTS | C1005X7R152KFT | 1V, 1kHz            | 1.5         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R182KFTS | C1005X7R182KFT | 1V, 1kHz            | 1.8         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R222KFTS | C1005X7R222KFT | 1V, 1kHz            | 2.2         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R272KFTS | C1005X7R272KFT | 1V, 1kHz            | 2.7         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R332□FTS | C1005X7R332□FT | 1V, 1kHz            | 3.3         | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R392KFTS | C1005X7R392KFT | 1V, 1kHz            | 3.9         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R472□FTS | C1005X7R472□FT | 1V, 1kHz            | 4.7         | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R562KFTS | C1005X7R562KFT | 1V, 1kHz            | 5.6         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R682KFTS | C1005X7R682KFT | 1V, 1kHz            | 6.8         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R822KFTS | C1005X7R822KFT | 1V, 1kHz            | 8.2         | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R103□FTS | C1005X7R103□FT | 1V, 1kHz            | 10          | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R123KFTS | C1005X7R123KFT | 1V, 1kHz            | 12          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R153□FTS | C1005X7R153□FT | 1V, 1kHz            | 15          | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R183KFTS | C1005X7R183KFT | 1V, 1kHz            | 18          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R223□FTS | C1005X7R223□FT | 1V, 1kHz            | 22          | nF         | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 3.0%      |                  | (I)        |
|                 | C1005X7R273□FTS | C1005X7R273□FT | 1V, 1kHz            | 27          | nF         | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 3.5%      |                  | (I)        |
|                 | C1005X7R333KFTS | C1005X7R333KFT | 1V, 1kHz            | 33          | nF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 3.5%      |                  | (I)        |
| C1005X7R393KFTS | C1005X7R393KFT  | 1V, 1kHz       | 39                  | nF          | ±10%       | 0.50                | ±0.05       | ±0.05         | 3.5%   | (I)       |                  |            |
| C1005X7R473KFTS | C1005X7R473KFT  | 1V, 1kHz       | 47                  | nF          | ±10%       | 0.50                | ±0.05       | ±0.05         | 3.5%   | (I)       |                  |            |
| C1005X7R563KFTS | C1005X7R563KFT  | 1V, 1kHz       | 56                  | nF          | ±10%       | 0.50                | ±0.05       | ±0.05         | 3.5%   | (I)       |                  |            |
| C1005X7R683KFTS | C1005X7R683KFT  | 1V, 1kHz       | 68                  | nF          | ±10%       | 0.50                | ±0.05       | ±0.05         | 3.5%   | (I)       |                  |            |
| C1005X7R104□FTS | C1005X7R104□FT  | 1V, 1kHz       | 100                 | nF          | ±10%, ±20% | 0.50                | ±0.05       | ±0.05         | 10.0%  | (II)      |                  |            |
| C1005X7R224KFTS | C1005X7R224KFT  | 1V, 1kHz       | 220                 | nF          | ±10%       | 0.50                | ±0.10       | ±0.10         | 10.0%  | (II)      |                  |            |
| 16V             | C1005X7R101KETS | C1005X7R101KET | 1V, 1kHz            | 100         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | Paper, 10Kpcs    | (I)        |
|                 | C1005X7R121KETS | C1005X7R121KET | 1V, 1kHz            | 120         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|                 | C1005X7R151KETS | C1005X7R151KET | 1V, 1kHz            | 150         | pF         | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |

| RV              | DARFON P/N      | DARFON P/N 2    | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |               |     |
|-----------------|-----------------|-----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|---------------|-----|
|                 |                 |                 |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |               |     |
| 16V             | C1005X7R181KETS | C1005X7R181KET  | 1V, 1kHz            | 180         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | Paper, 10Kpcs    | (I)        |               |     |
|                 | C1005X7R221ETS  | C1005X7R221ET   | 1V, 1kHz            | 220         | pF   | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R271KETS | C1005X7R271KET  | 1V, 1kHz            | 270         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R331KETS | C1005X7R331KET  | 1V, 1kHz            | 330         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R391KETS | C1005X7R391KET  | 1V, 1kHz            | 390         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R471KETS | C1005X7R471KET  | 1V, 1kHz            | 470         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R561KETS | C1005X7R561KET  | 1V, 1kHz            | 560         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R681KETS | C1005X7R681KET  | 1V, 1kHz            | 680         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R821KETS | C1005X7R821KET  | 1V, 1kHz            | 820         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R102ETS  | C1005X7R102ET   | 1V, 1kHz            | 1.0         | nF   | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R122KETS | C1005X7R122KET  | 1V, 1kHz            | 1.2         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R152ETS  | C1005X7R152ET   | 1V, 1kHz            | 1.5         | nF   | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R182KETS | C1005X7R182KET  | 1V, 1kHz            | 1.8         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R222ETS  | C1005X7R222ET   | 1V, 1kHz            | 2.2         | nF   | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R272KETS | C1005X7R272KET  | 1V, 1kHz            | 2.7         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R332KETS | C1005X7R332KET  | 1V, 1kHz            | 3.3         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R392KETS | C1005X7R392KET  | 1V, 1kHz            | 3.9         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R472KETS | C1005X7R472KET  | 1V, 1kHz            | 4.7         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R562KETS | C1005X7R562KET  | 1V, 1kHz            | 5.6         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R682KETS | C1005X7R682KET  | 1V, 1kHz            | 6.8         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R822KETS | C1005X7R822KET  | 1V, 1kHz            | 8.2         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R103ETS  | C1005X7R103ET   | 1V, 1kHz            | 10          | nF   | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R123KETS | C1005X7R123KET  | 1V, 1kHz            | 12          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R153KETS | C1005X7R153KET  | 1V, 1kHz            | 15          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R183KETS | C1005X7R183KET  | 1V, 1kHz            | 18          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R223KETS | C1005X7R223KET  | 1V, 1kHz            | 22          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R273KETS | C1005X7R273KET  | 1V, 1kHz            | 27          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R333KETS | C1005X7R333KET  | 1V, 1kHz            | 33          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R393KETS | C1005X7R393KET  | 1V, 1kHz            | 39          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R473ETS  | C1005X7R473ET   | 1V, 1kHz            | 47          | nF   | ±10%,±20%           | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R563KETS | C1005X7R563KET  | 1V, 1kHz            | 56          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R683KETS | C1005X7R683KET  | 1V, 1kHz            | 68          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R823KETS | C1005X7R823KET  | 1V, 1kHz            | 82          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R104ETS  | C1005X7R104ET   | 1V, 1kHz            | 100         | nF   | ±5%, ±10%, ±20%     | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |               |     |
|                 | C1005X7R154KETS | C1005X7R154KET  | 1V, 1kHz            | 150         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 10.0%     |                  | (II)       |               |     |
|                 | C1005X7R224ETS  | C1005X7R224ET   | 1V, 1kHz            | 220         | nF   | ±10%,±20%           | 0.50        | ±0.10         | ±0.10  | 10.0%     |                  | (II)       |               |     |
|                 | C1005X7R334KETS | C1005X7R334KET  | 1V, 1kHz            | 330         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 12.5%     |                  | (III)*     |               |     |
|                 | C1005X7R474KETS | C1005X7R474KET  | 1V, 1kHz            | 470         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 12.5%     |                  | (III)*     |               |     |
|                 | 10V             | C1005X7R101KDTS | C1005X7R101KDT      | 1V, 1kHz    | 100  | pF                  | ±10%        | 0.50          | ±0.05  | ±0.05     |                  | 5.0%       | Paper, 10Kpcs | (I) |
|                 |                 | C1005X7R121KDTS | C1005X7R121KDT      | 1V, 1kHz    | 120  | pF                  | ±10%        | 0.50          | ±0.05  | ±0.05     |                  | 5.0%       |               | (I) |
| C1005X7R151KDTS |                 | C1005X7R151KDT  | 1V, 1kHz            | 150         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R181KDTS |                 | C1005X7R181KDT  | 1V, 1kHz            | 180         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R221KDTS |                 | C1005X7R221KDT  | 1V, 1kHz            | 220         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R271KDTS |                 | C1005X7R271KDT  | 1V, 1kHz            | 270         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R331KDTS |                 | C1005X7R331KDT  | 1V, 1kHz            | 330         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R391KDTS |                 | C1005X7R391KDT  | 1V, 1kHz            | 390         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R471KDTS |                 | C1005X7R471KDT  | 1V, 1kHz            | 470         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R561KDTS |                 | C1005X7R561KDT  | 1V, 1kHz            | 560         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R681KDTS |                 | C1005X7R681KDT  | 1V, 1kHz            | 680         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R821KDTS |                 | C1005X7R821KDT  | 1V, 1kHz            | 820         | pF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R102KDTS |                 | C1005X7R102KDT  | 1V, 1kHz            | 1.0         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R122KDTS |                 | C1005X7R122KDT  | 1V, 1kHz            | 1.2         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R152KDTS |                 | C1005X7R152KDT  | 1V, 1kHz            | 1.5         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R182KDTS |                 | C1005X7R182KDT  | 1V, 1kHz            | 1.8         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R222KDTS |                 | C1005X7R222KDT  | 1V, 1kHz            | 2.2         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R272KDTS |                 | C1005X7R272KDT  | 1V, 1kHz            | 2.7         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R332KDTS |                 | C1005X7R332KDT  | 1V, 1kHz            | 3.3         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R392KDTS |                 | C1005X7R392KDT  | 1V, 1kHz            | 3.9         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R472KDTS |                 | C1005X7R472KDT  | 1V, 1kHz            | 4.7         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R562KDTS |                 | C1005X7R562KDT  | 1V, 1kHz            | 5.6         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R682KDTS |                 | C1005X7R682KDT  | 1V, 1kHz            | 6.8         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R822KDTS |                 | C1005X7R822KDT  | 1V, 1kHz            | 8.2         | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R103KDTS |                 | C1005X7R103KDT  | 1V, 1kHz            | 10          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R123KDTS |                 | C1005X7R123KDT  | 1V, 1kHz            | 12          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R153KDTS |                 | C1005X7R153KDT  | 1V, 1kHz            | 15          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R183KDTS |                 | C1005X7R183KDT  | 1V, 1kHz            | 18          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R223KDTS |                 | C1005X7R223KDT  | 1V, 1kHz            | 22          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R273KDTS |                 | C1005X7R273KDT  | 1V, 1kHz            | 27          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R333KDTS |                 | C1005X7R333KDT  | 1V, 1kHz            | 33          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R393KDTS |                 | C1005X7R393KDT  | 1V, 1kHz            | 39          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R473KDTS |                 | C1005X7R473KDT  | 1V, 1kHz            | 47          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R563KDTS |                 | C1005X7R563KDT  | 1V, 1kHz            | 56          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R683KDTS |                 | C1005X7R683KDT  | 1V, 1kHz            | 68          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R823KDTS |                 | C1005X7R823KDT  | 1V, 1kHz            | 82          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R104KDTS |                 | C1005X7R104KDT  | 1V, 1kHz            | 100         | nF   | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 5.0%      | (I)              |            |               |     |
| C1005X7R224KDTS |                 | C1005X7R224KDT  | 1V, 1kHz            | 220         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 10.0%     | (II)             |            |               |     |
| C1005X7R334KDTS |                 | C1005X7R334KDT  | 1V, 1kHz            | 330         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 10.0%     | (II)             |            |               |     |
| C1005X7R474KDTS |                 | C1005X7R474KDT  | 1V, 1kHz            | 470         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 10.0%     | (II)             |            |               |     |
| C1005X7R684KDTS | C1005X7R684KDT  | 1V, 1kHz        | 680                 | nF          | ±10% | 0.50                | ±0.10       | ±0.10         | 10.0%  | (II)*     |                  |            |               |     |
| C1005X7R105KDTS | C1005X7R105KDT  | 1V, 1kHz        | 1.0                 | uF          | ±10% | 0.50                | ±0.10       | ±0.10         | 10.0%  | (II)*     |                  |            |               |     |

□ Tolerance Code: J=±5%, K=±10%, M=±20%; Special tolerance on the request.

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 6.3V | C1005X7R103KCTS | C1005X7R103KCT | 1V , 1kHz           | 10          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      | Paper, 10Kpcs    | (I)        |
|      | C1005X7R223KCTS | C1005X7R223KCT | 1V , 1kHz           | 22          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|      | C1005X7R473KCTS | C1005X7R473KCT | 1V , 1kHz           | 47          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|      | C1005X7R683KCTS | C1005X7R683KCT | 1V , 1kHz           | 68          | nF   | ±10%                | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|      | C1005X7R104□CTS | C1005X7R104□CT | 1V , 1kHz           | 100         | nF   | ±5%,±10%            | 0.50        | ±0.05         | ±0.05  | 5.0%      |                  | (I)        |
|      | C1005X7R224KCTS | C1005X7R224KCT | 1V , 1kHz           | 220         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 10.0%     |                  | (II)       |
|      | C1005X7R334KCTS | C1005X7R334KCT | 1V , 1kHz           | 330         | nF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 10.0%     |                  | (II)       |
|      | C1005X7R474□CTS | C1005X7R474□CT | 1V , 1kHz           | 470         | nF   | ±10%, ±20%          | 0.50        | ±0.10         | ±0.10  | 10.0%     |                  | (II)       |
|      | C1005X7R105□CTS | C1005X7R105□CT | 1V , 1kHz           | 1.0         | uF   | ±10%, ±20%          | 0.50        | ±0.05         | ±0.05  | 12.5%     | Paper, 10Kpcs    | (II)*      |



● C1608X7R Series (EIA0603)

| RV               | DARFON P/N       | DARFON P/N 2    | Measuring Condition | Capacitance |               | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------------------|------------------|-----------------|---------------------|-------------|---------------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|                  |                  |                 |                     | Value       | Unit          |                     |             | L/W           | Thick. |           |                  |            |
| 50V              | C1608X7R101KGTS  | C1608X7R101KGT  | 1V, 1kHz            | 100         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      | Paper, 4Kpcs     | (I)        |
|                  | C1608X7R121KGTS  | C1608X7R121KGT  | 1V, 1kHz            | 120         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R151KGTS  | C1608X7R151KGT  | 1V, 1kHz            | 150         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R181KGTS  | C1608X7R181KGT  | 1V, 1kHz            | 180         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R221KGTS  | C1608X7R221KGT  | 1V, 1kHz            | 220         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R271KGTS  | C1608X7R271KGT  | 1V, 1kHz            | 270         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R331KGTS  | C1608X7R331KGT  | 1V, 1kHz            | 330         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R391KGTS  | C1608X7R391KGT  | 1V, 1kHz            | 390         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R471□GTS  | C1608X7R471□GT  | 1V, 1kHz            | 470         | pF            | ±10%,±20%           | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R561KGTS  | C1608X7R561KGT  | 1V, 1kHz            | 560         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R681KGTS  | C1608X7R681KGT  | 1V, 1kHz            | 680         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R821KGTS  | C1608X7R821KGT  | 1V, 1kHz            | 820         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R102□GTS  | C1608X7R102□GT  | 1V, 1kHz            | 1.0         | nF            | ±5%,±10%            | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R122□GTS  | C1608X7R122□GT  | 1V, 1kHz            | 1.2         | nF            | ±5%,±10%            | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R152KGTS  | C1608X7R152KGT  | 1V, 1kHz            | 1.5         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R182KGTS  | C1608X7R182KGT  | 1V, 1kHz            | 1.8         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R202KGTS  | C1608X7R202KGT  | 1V, 1kHz            | 2.0         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R222KGTS  | C1608X7R222KGT  | 1V, 1kHz            | 2.2         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R272KGTS  | C1608X7R272KGT  | 1V, 1kHz            | 2.7         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R332KGTS  | C1608X7R332KGT  | 1V, 1kHz            | 3.3         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R392KGTS  | C1608X7R392KGT  | 1V, 1kHz            | 3.9         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R472□GTS  | C1608X7R472□GT  | 1V, 1kHz            | 4.7         | nF            | ±5%,±10%            | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R562KGTS  | C1608X7R562KGT  | 1V, 1kHz            | 5.6         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R682□GTS  | C1608X7R682□GT  | 1V, 1kHz            | 6.8         | nF            | ±5%,±10%            | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R822KGTS  | C1608X7R822KGT  | 1V, 1kHz            | 8.2         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R103□GTS  | C1608X7R103□GT  | 1V, 1kHz            | 10          | nF            | ±5%,±10%            | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R123KGTS  | C1608X7R123KGT  | 1V, 1kHz            | 12          | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R153KGTS  | C1608X7R153KGT  | 1V, 1kHz            | 15          | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R183□GTS  | C1608X7R183□GT  | 1V, 1kHz            | 18          | nF            | ±5%,±10%            | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R223KGTS  | C1608X7R223KGT  | 1V, 1kHz            | 22          | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R273KGTS  | C1608X7R273KGT  | 1V, 1kHz            | 27          | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 2.5%      |                  | (I)        |
|                  | C1608X7R333KGTS  | C1608X7R333KGT  | 1V, 1kHz            | 33          | nF            | ±10%                | 0.80        | ±0.15         | ±0.15  | 2.5%      |                  | (I)        |
|                  | C1608X7R393KGTS  | C1608X7R393KGT  | 1V, 1kHz            | 39          | nF            | ±10%                | 0.80        | ±0.15         | ±0.15  | 2.5%      |                  | (I)        |
|                  | C1608X7R473KGTS  | C1608X7R473KGT  | 1V, 1kHz            | 47          | nF            | ±10%                | 0.80        | ±0.15         | ±0.15  | 3.0%      |                  | (I)        |
|                  | C1608X7R563KGTS  | C1608X7R563KGT  | 1V, 1kHz            | 56          | nF            | ±10%                | 0.80        | ±0.15         | ±0.15  | 3.0%      |                  | (I)        |
| C1608X7R683KGTS  | C1608X7R683KGT   | 1V, 1kHz        | 68                  | nF          | ±10%          | 0.80                | ±0.15       | ±0.15         | 3.0%   | (I)       |                  |            |
| C1608X7R823KGTS  | C1608X7R823KGT   | 1V, 1kHz        | 82                  | nF          | ±10%          | 0.80                | ±0.15       | ±0.15         | 3.0%   | (I)       |                  |            |
| C1608X7R104□GTS  | C1608X7R104□GT   | 1V, 1kHz        | 100                 | nF          | ±5%,±10%,±20% | 0.80                | ±0.15       | ±0.15         | 3.0%   | (II)      |                  |            |
| C1608X7R154KGTS  | C1608X7R154KGT   | 1V, 1kHz        | 150                 | nF          | ±10%          | 0.80                | ±0.15       | ±0.15         | 3.5%   | (II)      |                  |            |
| C1608X7R224□GTS  | C1608X7R224□GT   | 1V, 1kHz        | 220                 | nF          | ±5%,±10%      | 0.80                | ±0.15       | ±0.15         | 3.5%   | (II)      |                  |            |
| C1608X7R334KGTS  | C1608X7R334KGT   | 1V, 1kHz        | 330                 | nF          | ±10%          | 0.80                | ±0.15       | ±0.15         | 10.0%  | (II)      |                  |            |
| C1608X7R474KGTS  | C1608X7R474KGT   | 1V, 1kHz        | 470                 | nF          | ±10%          | 0.80                | ±0.15       | ±0.15         | 10.0%  | (II)      |                  |            |
| C1608X7R105KGTS  | C1608X7R105KGT   | 1V, 1kHz        | 1.0                 | uF          | ±10%          | 0.80                | ±0.20       | ±0.20         | 10.0%  | (II)      |                  |            |
| 35V              | C1608X7R474KNTS  | C1608X7R474KNT  | 1V, 1kHz            | 470         | nF            | ±10%                | 0.80        | ±0.15         | ±0.15  | 10.0%     | Paper, 4Kpcs     | (II)       |
|                  | C1608X7R105KNTS  | C1608X7R105KNT  | 1V, 1kHz            | 1.0         | uF            | ±10%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |
| 25V              | C1608X7R101KFSTS | C1608X7R101KFST | 1V, 1kHz            | 100         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      | Paper, 4Kpcs     | (I)        |
|                  | C1608X7R121KFSTS | C1608X7R121KFST | 1V, 1kHz            | 120         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R151KFSTS | C1608X7R151KFST | 1V, 1kHz            | 150         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R181KFSTS | C1608X7R181KFST | 1V, 1kHz            | 180         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R221KFSTS | C1608X7R221KFST | 1V, 1kHz            | 220         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R271KFSTS | C1608X7R271KFST | 1V, 1kHz            | 270         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R331KFSTS | C1608X7R331KFST | 1V, 1kHz            | 330         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R391KFSTS | C1608X7R391KFST | 1V, 1kHz            | 390         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R471KFSTS | C1608X7R471KFST | 1V, 1kHz            | 470         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R561KFSTS | C1608X7R561KFST | 1V, 1kHz            | 560         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R681KFSTS | C1608X7R681KFST | 1V, 1kHz            | 680         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R821KFSTS | C1608X7R821KFST | 1V, 1kHz            | 820         | pF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R102KFSTS | C1608X7R102KFST | 1V, 1kHz            | 1.0         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R122KFSTS | C1608X7R122KFST | 1V, 1kHz            | 1.2         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R152KFSTS | C1608X7R152KFST | 1V, 1kHz            | 1.5         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R182KFSTS | C1608X7R182KFST | 1V, 1kHz            | 1.8         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R222KFSTS | C1608X7R222KFST | 1V, 1kHz            | 2.2         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
|                  | C1608X7R272KFSTS | C1608X7R272KFST | 1V, 1kHz            | 2.7         | nF            | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |
| C1608X7R332KFSTS | C1608X7R332KFST  | 1V, 1kHz        | 3.3                 | nF          | ±10%          | 0.80                | ±0.10       | ±0.10         | 3.5%   | (I)       |                  |            |
| C1608X7R392KFSTS | C1608X7R392KFST  | 1V, 1kHz        | 3.9                 | nF          | ±10%          | 0.80                | ±0.10       | ±0.10         | 3.5%   | (I)       |                  |            |
| C1608X7R472KFSTS | C1608X7R472KFST  | 1V, 1kHz        | 4.7                 | nF          | ±10%          | 0.80                | ±0.10       | ±0.10         | 3.5%   | (I)       |                  |            |

MLCC  
General Purpose

| RV              | DARFON P/N      | DARFON P/N 2    | Measuring Condition | Capacitance |            | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |              |     |
|-----------------|-----------------|-----------------|---------------------|-------------|------------|---------------------|-------------|---------------|--------|-----------|------------------|------------|--------------|-----|
|                 |                 |                 |                     | Value       | Unit       |                     |             | L/W           | Thick. |           |                  |            |              |     |
| 25V             | C1608X7R562KFTS | C1608X7R562KFT  | 1V, 1kHz            | 5.6         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      | Paper, 4Kpcs     | (I)        |              |     |
|                 | C1608X7R682KFTS | C1608X7R682KFT  | 1V, 1kHz            | 6.8         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R822KFTS | C1608X7R822KFT  | 1V, 1kHz            | 8.2         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R103□FTS | C1608X7R103□FT  | 1V, 1kHz            | 10          | nF         | ±5%,±10%            | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R123KFTS | C1608X7R123KFT  | 1V, 1kHz            | 12          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R153KFTS | C1608X7R153KFT  | 1V, 1kHz            | 15          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R183KFTS | C1608X7R183KFT  | 1V, 1kHz            | 18          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R223□FTS | C1608X7R223□FT  | 1V, 1kHz            | 22          | nF         | ±5%,±10%            | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R273□FTS | C1608X7R273□FT  | 1V, 1kHz            | 27          | nF         | ±5%,±10%            | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R333KFTS | C1608X7R333KFT  | 1V, 1kHz            | 33          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R393KFTS | C1608X7R393KFT  | 1V, 1kHz            | 39          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R473KFTS | C1608X7R473KFT  | 1V, 1kHz            | 47          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R563KFTS | C1608X7R563KFT  | 1V, 1kHz            | 56          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R683KFTS | C1608X7R683KFT  | 1V, 1kHz            | 68          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R823KFTS | C1608X7R823KFT  | 1V, 1kHz            | 82          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R104KFTS | C1608X7R104KFT  | 1V, 1kHz            | 100         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R124KFTS | C1608X7R124KFT  | 1V, 1kHz            | 120         | nF         | ±10%                | 0.80        | ±0.15         | ±0.15  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R154KFTS | C1608X7R154KFT  | 1V, 1kHz            | 150         | nF         | ±10%                | 0.80        | ±0.15         | ±0.15  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R184KFTS | C1608X7R184KFT  | 1V, 1kHz            | 180         | nF         | ±10%                | 0.80        | ±0.15         | ±0.15  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R224□FTS | C1608X7R224□FT  | 1V, 1kHz            | 220         | nF         | ±10%,±20%           | 0.80        | ±0.15         | ±0.15  | 3.5%      |                  | (I)        |              |     |
|                 | C1608X7R334KFTS | C1608X7R334KFT  | 1V, 1kHz            | 330         | nF         | ±10%                | 0.80        | ±0.15         | ±0.15  | 7.0%      |                  | (I)        |              |     |
|                 | C1608X7R474□FTS | C1608X7R474□FT  | 1V, 1kHz            | 470         | nF         | ±10%,±20%           | 0.80        | ±0.15         | ±0.15  | 10.0%     |                  | (I)        |              |     |
|                 | C1608X7R105KFTS | C1608X7R105KFT  | 1V, 1kHz            | 1.0         | uF         | ±10%                | 0.80        | ±0.15         | ±0.15  | 10.0%     |                  | (II)       |              |     |
|                 | C1608X7R225KFTS | C1608X7R225KFT  | 1V, 1kHz            | 2.2         | uF         | ±10%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |              |     |
|                 | 16V             | C1608X7R101KETS | C1608X7R101KET      | 1V, 1kHz    | 100        | pF                  | ±10%        | 0.80          | ±0.10  | ±0.10     |                  | 5.0%       | Paper, 4Kpcs | (I) |
|                 |                 | C1608X7R121KETS | C1608X7R121KET      | 1V, 1kHz    | 120        | pF                  | ±10%        | 0.80          | ±0.10  | ±0.10     |                  | 5.0%       |              | (I) |
| C1608X7R151KETS |                 | C1608X7R151KET  | 1V, 1kHz            | 150         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R181KETS |                 | C1608X7R181KET  | 1V, 1kHz            | 180         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R221KETS |                 | C1608X7R221KET  | 1V, 1kHz            | 220         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R271KETS |                 | C1608X7R271KET  | 1V, 1kHz            | 270         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R331KETS |                 | C1608X7R331KET  | 1V, 1kHz            | 330         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R391KETS |                 | C1608X7R391KET  | 1V, 1kHz            | 390         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R471KETS |                 | C1608X7R471KET  | 1V, 1kHz            | 470         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R561KETS |                 | C1608X7R561KET  | 1V, 1kHz            | 560         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R681KETS |                 | C1608X7R681KET  | 1V, 1kHz            | 680         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R821KETS |                 | C1608X7R821KET  | 1V, 1kHz            | 820         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R102KETS |                 | C1608X7R102KET  | 1V, 1kHz            | 1.0         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R122KETS |                 | C1608X7R122KET  | 1V, 1kHz            | 1.2         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R152KETS |                 | C1608X7R152KET  | 1V, 1kHz            | 1.5         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R182KETS |                 | C1608X7R182KET  | 1V, 1kHz            | 1.8         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R222KETS |                 | C1608X7R222KET  | 1V, 1kHz            | 2.2         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R272KETS |                 | C1608X7R272KET  | 1V, 1kHz            | 2.7         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R332KETS |                 | C1608X7R332KET  | 1V, 1kHz            | 3.3         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R392KETS |                 | C1608X7R392KET  | 1V, 1kHz            | 3.9         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R472KETS |                 | C1608X7R472KET  | 1V, 1kHz            | 4.7         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R562KETS |                 | C1608X7R562KET  | 1V, 1kHz            | 5.6         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R682KETS |                 | C1608X7R682KET  | 1V, 1kHz            | 6.8         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R822KETS |                 | C1608X7R822KET  | 1V, 1kHz            | 8.2         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R103KETS |                 | C1608X7R103KET  | 1V, 1kHz            | 10          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R123KETS |                 | C1608X7R123KET  | 1V, 1kHz            | 12          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R153KETS |                 | C1608X7R153KET  | 1V, 1kHz            | 15          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R183KETS |                 | C1608X7R183KET  | 1V, 1kHz            | 18          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R223KETS |                 | C1608X7R223KET  | 1V, 1kHz            | 22          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R273KETS |                 | C1608X7R273KET  | 1V, 1kHz            | 27          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R333KETS |                 | C1608X7R333KET  | 1V, 1kHz            | 33          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R393KETS |                 | C1608X7R393KET  | 1V, 1kHz            | 39          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R473KETS |                 | C1608X7R473KET  | 1V, 1kHz            | 47          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R563KETS |                 | C1608X7R563KET  | 1V, 1kHz            | 56          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R683KETS |                 | C1608X7R683KET  | 1V, 1kHz            | 68          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R823KETS |                 | C1608X7R823KET  | 1V, 1kHz            | 82          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R104KETS |                 | C1608X7R104KET  | 1V, 1kHz            | 100         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R124KETS |                 | C1608X7R124KET  | 1V, 1kHz            | 120         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R154KETS |                 | C1608X7R154KET  | 1V, 1kHz            | 150         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | (I)              |            |              |     |
| C1608X7R184KETS |                 | C1608X7R184KET  | 1V, 1kHz            | 180         | nF         | ±10%                | 0.80        | ±0.15         | ±0.15  | 5.0%      | (I)              |            |              |     |
| C1608X7R224KETS |                 | C1608X7R224KET  | 1V, 1kHz            | 220         | nF         | ±10%                | 0.80        | ±0.15         | ±0.15  | 5.0%      | (I)              |            |              |     |
| C1608X7R334KETS |                 | C1608X7R334KET  | 1V, 1kHz            | 330         | nF         | ±10%                | 0.80        | ±0.15         | ±0.15  | 5.0%      | (I)              |            |              |     |
| C1608X7R474KETS | C1608X7R474KET  | 1V, 1kHz        | 470                 | nF          | ±10%       | 0.80                | ±0.15       | ±0.15         | 5.0%   | (I)       |                  |            |              |     |
| C1608X7R684KETS | C1608X7R684KET  | 1V, 1kHz        | 680                 | nF          | ±10%       | 0.80                | ±0.15       | ±0.15         | 10.0%  | (I)       |                  |            |              |     |
| C1608X7R105□ETS | C1608X7R105□ET  | 1V, 1kHz        | 1.0                 | uF          | ±10%, ±20% | 0.80                | ±0.15       | ±0.15         | 10.0%  | (II)      |                  |            |              |     |
| C1608X7R225□ETS | C1608X7R225□ET  | 1V, 1kHz        | 2.2                 | uF          | ±10%, ±20% | 0.80                | ±0.20       | ±0.20         | 10.0%  | (II)      |                  |            |              |     |

| RV              | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |            | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|-----------------|-----------------|----------------|---------------------|-------------|------------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|                 |                 |                |                     | Value       | Unit       |                     |             | L/W           | Thick. |           |                  |            |
| 10V             | C1608X7R101KDTS | C1608X7R101KDT | 1V, 1kHz            | 100         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | Paper, 4Kpcs     | (I)        |
|                 | C1608X7R121KDTS | C1608X7R121KDT | 1V, 1kHz            | 120         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R151KDTS | C1608X7R151KDT | 1V, 1kHz            | 150         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R181KDTS | C1608X7R181KDT | 1V, 1kHz            | 180         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R221KDTS | C1608X7R221KDT | 1V, 1kHz            | 220         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R271KDTS | C1608X7R271KDT | 1V, 1kHz            | 270         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R331KDTS | C1608X7R331KDT | 1V, 1kHz            | 330         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R391KDTS | C1608X7R391KDT | 1V, 1kHz            | 390         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R471KDTS | C1608X7R471KDT | 1V, 1kHz            | 470         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R561KDTS | C1608X7R561KDT | 1V, 1kHz            | 560         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R681KDTS | C1608X7R681KDT | 1V, 1kHz            | 680         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R821KDTS | C1608X7R821KDT | 1V, 1kHz            | 820         | pF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R102KDTS | C1608X7R102KDT | 1V, 1kHz            | 1.0         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R122KDTS | C1608X7R122KDT | 1V, 1kHz            | 1.2         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R152KDTS | C1608X7R152KDT | 1V, 1kHz            | 1.5         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R182KDTS | C1608X7R182KDT | 1V, 1kHz            | 1.8         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R222KDTS | C1608X7R222KDT | 1V, 1kHz            | 2.2         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R272KDTS | C1608X7R272KDT | 1V, 1kHz            | 2.7         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R332KDTS | C1608X7R332KDT | 1V, 1kHz            | 3.3         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R392KDTS | C1608X7R392KDT | 1V, 1kHz            | 3.9         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R472KDTS | C1608X7R472KDT | 1V, 1kHz            | 4.7         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R562KDTS | C1608X7R562KDT | 1V, 1kHz            | 5.6         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R682KDTS | C1608X7R682KDT | 1V, 1kHz            | 6.8         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R822KDTS | C1608X7R822KDT | 1V, 1kHz            | 8.2         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R103KDTS | C1608X7R103KDT | 1V, 1kHz            | 10          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R123KDTS | C1608X7R123KDT | 1V, 1kHz            | 12          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R153KDTS | C1608X7R153KDT | 1V, 1kHz            | 15          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R183KDTS | C1608X7R183KDT | 1V, 1kHz            | 18          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R223KDTS | C1608X7R223KDT | 1V, 1kHz            | 22          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R273KDTS | C1608X7R273KDT | 1V, 1kHz            | 27          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R333KDTS | C1608X7R333KDT | 1V, 1kHz            | 33          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R393KDTS | C1608X7R393KDT | 1V, 1kHz            | 39          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R473KDTS | C1608X7R473KDT | 1V, 1kHz            | 47          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
| C1608X7R563KDTS | C1608X7R563KDT  | 1V, 1kHz       | 56                  | nF          | ±10%       | 0.80                | ±0.10       | ±0.10         | 5.0%   | (I)       |                  |            |
| C1608X7R683KDTS | C1608X7R683KDT  | 1V, 1kHz       | 68                  | nF          | ±10%       | 0.80                | ±0.10       | ±0.10         | 5.0%   | (I)       |                  |            |
| C1608X7R823KDTS | C1608X7R823KDT  | 1V, 1kHz       | 82                  | nF          | ±10%       | 0.80                | ±0.10       | ±0.10         | 5.0%   | (I)       |                  |            |
| C1608X7R104KDTS | C1608X7R104KDT  | 1V, 1kHz       | 100                 | nF          | ±10%       | 0.80                | ±0.10       | ±0.10         | 5.0%   | (I)       |                  |            |
| C1608X7R124KDTS | C1608X7R124KDT  | 1V, 1kHz       | 120                 | nF          | ±10%       | 0.80                | ±0.10       | ±0.10         | 5.0%   | (I)       |                  |            |
| C1608X7R154KDTS | C1608X7R154KDT  | 1V, 1kHz       | 150                 | nF          | ±10%       | 0.80                | ±0.10       | ±0.10         | 5.0%   | (I)       |                  |            |
| C1608X7R224KDTS | C1608X7R224KDT  | 1V, 1kHz       | 220                 | nF          | ±10%       | 0.80                | ±0.15       | ±0.15         | 5.0%   | (I)       |                  |            |
| C1608X7R334KDTS | C1608X7R334KDT  | 1V, 1kHz       | 330                 | nF          | ±10%       | 0.80                | ±0.15       | ±0.15         | 10.0%  | (I)       |                  |            |
| C1608X7R474KDTS | C1608X7R474KDT  | 1V, 1kHz       | 470                 | nF          | ±10%       | 0.80                | ±0.15       | ±0.15         | 10.0%  | (I)       |                  |            |
| C1608X7R684KDTS | C1608X7R684KDT  | 1V, 1kHz       | 680                 | nF          | ±10%       | 0.80                | ±0.15       | ±0.15         | 10.0%  | (I)       |                  |            |
| C1608X7R105□DTS | C1608X7R105□DT  | 1V, 1kHz       | 1.0                 | uF          | ±10%, ±20% | 0.80                | ±0.15       | ±0.15         | 10.0%  | (II)      |                  |            |
| C1608X7R225KDTS | C1608X7R225KDT  | 1V, 1kHz       | 2.2                 | uF          | ±10%       | 0.80                | ±0.15       | ±0.15         | 10.0%  | (II)      |                  |            |
| C1608X7R475KDTS | C1608X7R475KDT  | 1V, 1kHz       | 4.7                 | uF          | ±10%       | 0.80                | ±0.20       | ±0.20         | 10.0%  | (III)*    |                  |            |
| 6.3V            | C1608X7R223KCTS | C1608X7R223KCT | 1V, 1kHz            | 22          | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      | Paper, 4Kpcs     | (I)        |
|                 | C1608X7R104KCTS | C1608X7R104KCT | 1V, 1kHz            | 100         | nF         | ±10%                | 0.80        | ±0.10         | ±0.10  | 5.0%      |                  | (I)        |
|                 | C1608X7R474KCTS | C1608X7R474KCT | 1V, 1kHz            | 470         | nF         | ±10%                | 0.80        | ±0.15         | ±0.15  | 10.0%     |                  | (I)        |
|                 | C1608X7R105KCTS | C1608X7R105KCT | 1V, 1kHz            | 1.0         | uF         | ±10%                | 0.80        | ±0.15         | ±0.15  | 10.0%     |                  | (II)       |
|                 | C1608X7R225KCTS | C1608X7R225KCT | 1V, 1kHz            | 2.2         | uF         | ±10%                | 0.80        | ±0.15         | ±0.15  | 10.0%     |                  | (II)       |
|                 | C1608X7R475KCTS | C1608X7R475KCT | 1V, 1kHz            | 4.7         | uF         | ±10%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |

□ Tolerance Code: J=±5%, K=±10%, M=±20%; Special tolerance on the request.

● C2012X7R Series (EIA0805)

| RV                | DARFON P/N        | DARFON P/N 2   | Measuring Condition | Capacitance |            | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec.      |     |
|-------------------|-------------------|----------------|---------------------|-------------|------------|---------------------|-------------|---------------|--------|-----------|------------------|-----------------|-----|
|                   |                   |                |                     | Value       | Unit       |                     |             | L/W           | Thick. |           |                  |                 |     |
| 50V               | C2012X7R101KGTS   | C2012X7R101KGT | 1V, 1kHz            | 100         | pF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | Paper, 4Kpcs     | (I)             |     |
|                   | C2012X7R151KGTS   | C2012X7R151KGT | 1V, 1kHz            | 150         | pF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R181KGTS   | C2012X7R181KGT | 1V, 1kHz            | 180         | pF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R221KGTS   | C2012X7R221KGT | 1V, 1kHz            | 220         | pF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R271KGTS   | C2012X7R271KGT | 1V, 1kHz            | 270         | pF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R331KGTS   | C2012X7R331KGT | 1V, 1kHz            | 330         | pF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R391KGTS   | C2012X7R391KGT | 1V, 1kHz            | 390         | pF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R471KGTS   | C2012X7R471KGT | 1V, 1kHz            | 470         | pF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R561KGTS   | C2012X7R561KGT | 1V, 1kHz            | 560         | pF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R681KGTS   | C2012X7R681KGT | 1V, 1kHz            | 680         | pF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R821KGTS   | C2012X7R821KGT | 1V, 1kHz            | 820         | pF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R102□GTS   | C2012X7R102□GT | 1V, 1kHz            | 1.0         | nF         | ±5%, ±10%           | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R122KGTS   | C2012X7R122KGT | 1V, 1kHz            | 1.2         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R152KGTS   | C2012X7R152KGT | 1V, 1kHz            | 1.5         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R182KGTS   | C2012X7R182KGT | 1V, 1kHz            | 1.8         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R222KGTS   | C2012X7R222KGT | 1V, 1kHz            | 2.2         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R272KGTS   | C2012X7R272KGT | 1V, 1kHz            | 2.7         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R332KGTS   | C2012X7R332KGT | 1V, 1kHz            | 3.3         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R392KGTS   | C2012X7R392KGT | 1V, 1kHz            | 3.9         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R472KGTS   | C2012X7R472KGT | 1V, 1kHz            | 4.7         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R562KGTS   | C2012X7R562KGT | 1V, 1kHz            | 5.6         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R682KGTS   | C2012X7R682KGT | 1V, 1kHz            | 6.8         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | (I)             |     |
|                   | C2012X7R682KGPSPG |                | 1V, 1kHz            | 6.8         | nF         | ±10%                | 1.25        | ±0.15         | ±0.20  | 2.5%      |                  | Embossed, 3Kpcs | (I) |
|                   | C2012X7R822KGTS   | C2012X7R822KGT | 1V, 1kHz            | 8.2         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  |                 | (I) |
|                   | C2012X7R103□GTS   | C2012X7R103□GT | 1V, 1kHz            | 10          | nF         | ±5%, ±10%           | 0.85        | ±0.15         | ±0.15  | 2.5%      |                  | Paper, 4Kpcs    | (I) |
|                   | C2012X7R123KGTS   | C2012X7R123KGT | 1V, 1kHz            | 12          | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R153KGTS   | C2012X7R153KGT | 1V, 1kHz            | 15          | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R183KGTS   | C2012X7R183KGT | 1V, 1kHz            | 18          | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R223□GTS   | C2012X7R223□GT | 1V, 1kHz            | 22          | nF         | ±5%, ±10%           | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R273KGTS   | C2012X7R273KGT | 1V, 1kHz            | 27          | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R333KGTS   | C2012X7R333KGT | 1V, 1kHz            | 33          | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R393KGTS   | C2012X7R393KGT | 1V, 1kHz            | 39          | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R473KGTS   | C2012X7R473KGT | 1V, 1kHz            | 47          | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R563KGTS   | C2012X7R563KGT | 1V, 1kHz            | 56          | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R683KGTS   | C2012X7R683KGT | 1V, 1kHz            | 68          | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R823KGTS   | C2012X7R823KGT | 1V, 1kHz            | 82          | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R104□GTSD  |                | 1V, 1kHz            | 100         | nF         | ±5%, ±10%, ±20%     | 0.80        | ±0.15         | ±0.10  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R104KGTS   | C2012X7R104KGT | 1V, 1kHz            | 100         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R124KGTS   | C2012X7R124KGT | 1V, 1kHz            | 120         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R154KGTS   | C2012X7R154KGT | 1V, 1kHz            | 150         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 2.5%      | (I)              |                 |     |
|                   | C2012X7R184KGTS   | C2012X7R184KGT | 1V, 1kHz            | 180         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.0%      | (I)              |                 |     |
|                   | C2012X7R184KGPSPG |                | 1V, 1kHz            | 180         | nF         | ±10%                | 1.25        | ±0.15         | ±0.20  | 3.0%      | Embossed, 3Kpcs  | (I)             |     |
|                   | C2012X7R224KGTS   | C2012X7R224KGT | 1V, 1kHz            | 220         | nF         | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.0%      |                  | Paper, 4Kpcs    | (I) |
|                   | C2012X7R224KGPS   | C2012X7R224KGP | 1V, 1kHz            | 220         | nF         | ±10%                | 1.25        | ±0.15         | ±0.20  | 3.0%      | (I)              |                 |     |
|                   | C2012X7R334KGPS   | C2012X7R334KGP | 1V, 1kHz            | 330         | nF         | ±10%                | 1.25        | ±0.15         | ±0.20  | 3.0%      | Embossed, 3Kpcs  | (I)             |     |
| C2012X7R474KGPS   | C2012X7R474KGP    | 1V, 1kHz       | 470                 | nF          | ±10%       | 1.25                | ±0.15       | ±0.20         | 3.5%   | (I)       |                  |                 |     |
| C2012X7R684KGPS   | C2012X7R684KGP    | 1V, 1kHz       | 680                 | nF          | ±10%       | 1.25                | ±0.15/±0.20 | ±0.20         | 10.0%  | (II)      |                  |                 |     |
| C2012X7R105□GPSPG | C2012X7R105□GP    | 1V, 1kHz       | 1.0                 | uF          | ±10%, ±20% | 1.25                | ±0.15/±0.20 | ±0.20         | 10.0%  | (II)      |                  |                 |     |
| C2012X7R225KGPSPG | C2012X7R225KGP    | 1V, 1kHz       | 2.2                 | uF          | ±10%       | 1.25                | ±0.20       | ±0.20         | 10.0%  | (II)      |                  |                 |     |

| RV               | DARFON P/N        | DARFON P/N 2      | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec.   |              |     |
|------------------|-------------------|-------------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|--------------|--------------|-----|
|                  |                   |                   |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |              |              |     |
| 35V              | C2012X7R474KNPS   | C2012X7R474KNP    | 1V, 1kHz            | 470         | nF   | ±10%                | 1.25        | ±0.15         | ±0.20  | 3.5%      | Embossed, 3Kpcs  | (I)          |              |     |
|                  | C2012X7R102KFSTS  | C2012X7R102KFT    | 1V, 1kHz            | 1.0         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R122KFSTS  | C2012X7R122KFT    | 1V, 1kHz            | 1.2         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R152KFSTS  | C2012X7R152KFT    | 1V, 1kHz            | 1.5         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R182KFSTS  | C2012X7R182KFT    | 1V, 1kHz            | 1.8         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R222KFSTS  | C2012X7R222KFT    | 1V, 1kHz            | 2.2         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R272KFSTS  | C2012X7R272KFT    | 1V, 1kHz            | 2.7         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R332KFSTS  | C2012X7R332KFT    | 1V, 1kHz            | 3.3         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R392KFSTS  | C2012X7R392KFT    | 1V, 1kHz            | 3.9         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R472KFSTS  | C2012X7R472KFT    | 1V, 1kHz            | 4.7         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R562KFSTS  | C2012X7R562KFT    | 1V, 1kHz            | 5.6         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R682KFSTS  | C2012X7R682KFT    | 1V, 1kHz            | 6.8         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R103KFSTS  | C2012X7R103KFT    | 1V, 1kHz            | 10          | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R123KFSTS  | C2012X7R123KFT    | 1V, 1kHz            | 12          | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R153KFSTS  | C2012X7R153KFT    | 1V, 1kHz            | 15          | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R183KFSTS  | C2012X7R183KFT    | 1V, 1kHz            | 18          | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R223KFSTS  | C2012X7R223KFT    | 1V, 1kHz            | 22          | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R273KFSTS  | C2012X7R273KFT    | 1V, 1kHz            | 27          | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | C2012X7R333KFSTS  | C2012X7R333KFT    | 1V, 1kHz            | 33          | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      |                  | (I)          |              |     |
|                  | 25V               | C2012X7R393KFSTS  | C2012X7R393KFT      | 1V, 1kHz    | 39   | nF                  | ±10%        | 0.85          | ±0.15  | ±0.15     |                  | 3.5%         | Paper, 4Kpcs | (I) |
| C2012X7R473KFSTS |                   | C2012X7R473KFT    | 1V, 1kHz            | 47          | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      | (I)              |              |              |     |
| C2012X7R563KFSTS |                   | C2012X7R563KFT    | 1V, 1kHz            | 56          | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      | (I)              |              |              |     |
| C2012X7R683KFSTS |                   | C2012X7R683KFT    | 1V, 1kHz            | 68          | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      | (I)              |              |              |     |
| C2012X7R823KFSTS |                   | C2012X7R823KFT    | 1V, 1kHz            | 82          | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      | (I)              |              |              |     |
| C2012X7R104□FSTS |                   | C2012X7R104□FT    | 1V, 1kHz            | 100         | nF   | ±5%, ±10%           | 0.85        | ±0.15         | ±0.15  | 3.5%      | (I)              |              |              |     |
| C2012X7R124KFSTS |                   | C2012X7R124KFT    | 1V, 1kHz            | 120         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      | (I)              |              |              |     |
| C2012X7R154KFSTS |                   | C2012X7R154KFT    | 1V, 1kHz            | 150         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      | (I)              |              |              |     |
| C2012X7R184KFSTS |                   | C2012X7R184KFT    | 1V, 1kHz            | 180         | nF   | ±10%                | 0.85        | ±0.15         | ±0.20  | 3.5%      | (I)              |              |              |     |
| C2012X7R224KFSTS |                   | C2012X7R224KFT    | 1V, 1kHz            | 220         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      | (I)              |              |              |     |
| C2012X7R224KFPS  |                   | C2012X7R224KFP    | 1V, 1kHz            | 220         | nF   | ±10%                | 1.25        | ±0.15         | ±0.20  | 3.5%      | (I)              |              |              |     |
| C2012X7R334KFPS  |                   | C2012X7R334KFP    | 1V, 1kHz            | 330         | nF   | ±10%                | 1.25        | ±0.15         | ±0.20  | 5.0%      | (I)              |              |              |     |
| C2012X7R474KFPS  |                   | C2012X7R474KFP    | 1V, 1kHz            | 470         | nF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 5.0%      | (I)              |              |              |     |
| C2012X7R684KFPS  |                   | C2012X7R684KFP    | 1V, 1kHz            | 680         | nF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 5.0%      | (I)              |              |              |     |
| C2012X7R105□FPS  |                   | C2012X7R105□FP    | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     | (II)             |              |              |     |
| C2012X7R225KFPS  |                   | C2012X7R225KFP    | 1V, 1kHz            | 2.2         | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     | (II)             |              |              |     |
| C2012X7R335KFPS  |                   | C2012X7R335KFP    | 1V, 1kHz            | 3.3         | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 12.5%     | (II)*            |              |              |     |
| C2012X7R475KFPS  |                   | C2012X7R475KFP    | 1V, 1kHz            | 4.7         | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 12.5%     | (II)*            |              |              |     |
| 16V              |                   | C2012X7R123KETSTS | C2012X7R123KET      | 1V, 1kHz    | 12   | nF                  | ±10%        | 0.85          | ±0.15  | ±0.15     | 3.5%             | Paper, 4Kpcs |              | (I) |
|                  |                   | C2012X7R104KETSTS | C2012X7R104KET      | 1V, 1kHz    | 100  | nF                  | ±10%        | 0.85          | ±0.15  | ±0.15     | 3.5%             |              |              | (I) |
|                  | C2012X7R224KETSTS | C2012X7R224KET    | 1V, 1kHz            | 220         | nF   | ±10%                | 0.85        | ±0.15         | ±0.15  | 3.5%      | (I)              |              |              |     |
|                  | C2012X7R224KEPS   | C2012X7R224KEP    | 1V, 1kHz            | 220         | nF   | ±10%                | 1.25        | ±0.15         | ±0.20  | 3.5%      | (I)              |              |              |     |
|                  | C2012X7R334KEPS   | C2012X7R334KEP    | 1V, 1kHz            | 330         | nF   | ±10%                | 1.25        | ±0.15         | ±0.20  | 5.0%      | (I)              |              |              |     |
|                  | C2012X7R474KEPS   | C2012X7R474KEP    | 1V, 1kHz            | 470         | nF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 5.0%      | (I)              |              |              |     |
|                  | C2012X7R684KEPS   | C2012X7R684KEP    | 1V, 1kHz            | 680         | nF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 5.0%      | (I)              |              |              |     |
|                  | C2012X7R105□EPS   | C2012X7R105□EP    | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 5.0%      | (I)              |              |              |     |
|                  | C2012X7R225□EPS   | C2012X7R225□EP    | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     | (I)              |              |              |     |
|                  | C2012X7R335KEPS   | C2012X7R335KEP    | 1V, 1kHz            | 3.3         | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     | (II)             |              |              |     |
|                  | C2012X7R475□EPS   | C2012X7R475□EP    | 1V, 1kHz            | 4.7         | uF   | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     | (II)             |              |              |     |
|                  | C2012X7R106□EPS   | C2012X7R106□EP    | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     | (II)*            |              |              |     |
| 10V              | C2012X7R105□DPS   | C2012X7R105□DP    | 1V, 1kHz            | 1.0         | uF   | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 5.0%      | Embossed, 3Kpcs  | (I)          |              |     |
|                  | C2012X7R225□DPS   | C2012X7R225□DP    | 1V, 1kHz            | 2.2         | uF   | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     |                  | (II)         |              |     |
|                  | C2012X7R335KDPS   | C2012X7R335KDP    | 1V, 1kHz            | 3.3         | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     |                  | (II)         |              |     |
|                  | C2012X7R475KDPS   | C2012X7R475KDP    | 1V, 1kHz            | 4.7         | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     |                  | (II)         |              |     |
|                  | C2012X7R106KDPS   | C2012X7R106KDP    | 1V, 1kHz            | 10          | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     |                  | (II)         |              |     |
| 6.3V             | C2012X7R335KCPS   | C2012X7R335KCP    | 1V, 1kHz            | 3.3         | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     | Embossed, 3Kpcs  | (II)         |              |     |
|                  | C2012X7R475KCPS   | C2012X7R475KCP    | 1V, 1kHz            | 4.7         | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     |                  | (II)         |              |     |
|                  | C2012X7R106□CPS   | C2012X7R106□CP    | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 15.0%     |                  | (II)         |              |     |
| 4V               | C2012X7R106□BPS   | C2012X7R106□BP    | 1V, 1kHz            | 10          | uF   | ±10%, ±20%          | 1.25        | ±0.15/±0.20   | ±0.20  | 15.0%     | Embossed, 3Kpcs  | (II)         |              |     |

MLCC  
General Purpose

● C3216X7R Series (EIA1206)

| RV               | DARFON P/N       | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.)       | Standard Packing | Test Spec. |
|------------------|------------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------------|------------------|------------|
|                  |                  |                |                     | Value       | Unit |                     |             | L/W           | Thick. |                 |                  |            |
| 50V              | C3216X7R221KGT   | C3216X7R221KGT | 1V, 1kHz            | 220         | pF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            | Paper, 4Kpcs     | (I)        |
|                  | C3216X7R102KGT   | C3216X7R102KGT | 1V, 1kHz            | 1.0         | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R182KGT   | C3216X7R182KGT | 1V, 1kHz            | 1.8         | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R222KGT   | C3216X7R222KGT | 1V, 1kHz            | 2.2         | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R472KGT   | C3216X7R472KGT | 1V, 1kHz            | 4.7         | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R562□GTS  | C3216X7R562□GT | 1V, 1kHz            | 5.6         | nF   | ±5%,±10%            | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R103□GTS  | C3216X7R103□GT | 1V, 1kHz            | 10          | nF   | ±10%,±20%           | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R123KGT   | C3216X7R123KGT | 1V, 1kHz            | 12          | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R153KGT   | C3216X7R153KGT | 1V, 1kHz            | 15          | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R183KGT   | C3216X7R183KGT | 1V, 1kHz            | 18          | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R223KGT   | C3216X7R223KGT | 1V, 1kHz            | 22          | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R273KGT   | C3216X7R273KGT | 1V, 1kHz            | 27          | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R333KGT   | C3216X7R333KGT | 1V, 1kHz            | 33          | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R393KGT   | C3216X7R393KGT | 1V, 1kHz            | 39          | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R473KGT   | C3216X7R473KGT | 1V, 1kHz            | 47          | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R563KGT   | C3216X7R563KGT | 1V, 1kHz            | 56          | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R683KGT   | C3216X7R683KGT | 1V, 1kHz            | 68          | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R823KGT   | C3216X7R823KGT | 1V, 1kHz            | 82          | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R104□GTS  | C3216X7R104□GT | 1V, 1kHz            | 100         | nF   | ±5%,±10%            | 0.85        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R224KGPS  | C3216X7R224KGP | 1V, 1kHz            | 220         | nF   | ±10%                | 0.95        | ±0.15         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R224KGPSF |                | 1V, 1kHz            | 220         | nF   | ±10%                | 1.15        | ±0.20         | ±0.10  | 3.5%            |                  | (I)        |
|                  | C3216X7R224KGPSG |                | 1V, 1kHz            | 220         | nF   | ±10%                | 1.25        | ±0.15         | ±0.15  | 3.5%            |                  | (I)        |
|                  | C3216X7R334□GPS  | C3216X7R334□GP | 1V, 1kHz            | 330         | nF   | ±5%,±10%            | 1.25        | ±0.15         | ±0.15  | 3.5%            |                  | (I)        |
|                  | C3216X7R474KGPSG |                | 1V, 1kHz            | 470         | nF   | ±10%                | 1.25        | ±0.15         | ±0.15  | 3.5%            |                  | (I)        |
| C3216X7R474KGPS  | C3216X7R474KGP   | 1V, 1kHz       | 470                 | nF          | ±10% | 1.60                | ±0.15       | ±0.20         | 3.5%   | (I)             |                  |            |
| C3216X7R684KGPS  | C3216X7R684KGP   | 1V, 1kHz       | 680                 | nF          | ±10% | 1.60                | +0.3/-0.1   | +0.3/-0.1     | 3.5%   | (I)             |                  |            |
| C3216X7R105KGPSG |                  | 1V, 1kHz       | 1.0                 | uF          | ±10% | 1.25                | ±0.15       | ±0.15         | 3.5%   | Embossed, 3Kpcs | (I)              |            |
| C3216X7R105KGPS  | C3216X7R105KGP   | 1V, 1kHz       | 1.0                 | uF          | ±10% | 1.60                | ±0.30       | ±0.30         | 3.5%   | (I)             |                  |            |
| C3216X7R225KGPSL | C3216X7R225KGP   | 1V, 1kHz       | 2.2                 | uF          | ±10% | 1.60                | ±0.20       | ±0.20         | 10.0%  | Embossed, 2Kpcs | (II)             |            |
| C3216X7R475KGPS  | C3216X7R475KGP   | 1V, 1kHz       | 4.7                 | uF          | ±10% | 1.60                | ±0.30       | ±0.30         | 10.0%  | (II)            |                  |            |
| C3216X7R106KGPSL | C3216X7R106KGP   | 1V, 1kHz       | 10                  | uF          | ±10% | 1.60                | ±0.20       | ±0.20         | 10.0%  | (II)            |                  |            |
| 35V              | C3216X7R106KNPSL | C3216X7R106KNP | 1V, 1kHz            | 10          | uF   | ±10%                | 1.60        | ±0.20         | ±0.20  | 10.0%           | Embossed, 2Kpcs  | (II)       |
|                  | C3216X7R224KFPS  | C3216X7R224KFP | 1V, 1kHz            | 220         | nF   | ±10%                | 0.95        | ±0.15         | ±0.10  | 3.5%            | Embossed, 3Kpcs  | (I)        |
| 25V              | C3216X7R224KFPSG |                | 1V, 1kHz            | 220         | nF   | ±10%                | 1.25        | ±0.15         | ±0.20  | 3.5%            | Embossed, 3Kpcs  | (I)        |
|                  | C3216X7R334KFPS  | C3216X7R334KFP | 1V, 1kHz            | 330         | nF   | ±10%                | 0.95        | ±0.15         | ±0.10  | 3.5%            | Embossed, 3Kpcs  | (I)        |
|                  | C3216X7R334KFPSG |                | 1V, 1kHz            | 330         | nF   | ±10%                | 1.25        | ±0.15         | ±0.20  | 3.5%            | Embossed, 3Kpcs  | (I)        |
|                  | C3216X7R474KFPS  | C3216X7R474KFP | 1V, 1kHz            | 470         | nF   | ±10%                | 1.25        | ±0.15         | ±0.20  | 3.5%            | Embossed, 3Kpcs  | (I)        |
|                  | C3216X7R474KFPSL |                | 1V, 1kHz            | 470         | nF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 3.5%            | Embossed, 2Kpcs  | (I)        |
|                  | C3216X7R105□FPSG |                | 1V, 1kHz            | 1.0         | uF   | ±10%,±20%           | 1.25        | ±0.15         | ±0.20  | 3.5%            | Embossed, 3Kpcs  | (I)        |
|                  | C3216X7R105KFPS  | C3216X7R105KFP | 1V, 1kHz            | 1.0         | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 3.5%            | Embossed, 2Kpcs  | (I)        |
|                  | C3216X7R225KFPS  | C3216X7R225KFP | 1V, 1kHz            | 2.2         | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 5.0%            | (I)              |            |
|                  | C3216X7R475KFPS  | C3216X7R475KFP | 1V, 1kHz            | 4.7         | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 10.0%           | Embossed, 2Kpcs  | (I)        |
|                  | C3216X7R106KFPS  | C3216X7R106KFP | 1V, 1kHz            | 10          | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 10.0%           | (II)*            |            |
| 16V              | C3216X7R104KETS  | C3216X7R104KET | 1V, 1kHz            | 100         | nF   | ±10%                | 0.85        | ±0.15         | ±0.10  | 3.5%            | Paper, 4Kpcs     | (I)        |
|                  | C3216X7R474KEPS  | C3216X7R474KEP | 1V, 1kHz            | 470         | nF   | ±10%                | 1.25        | ±0.15         | ±0.20  | 5.0%            | Embossed, 3Kpcs  | (I)        |
|                  | C3216X7R474KEPSL |                | 1V, 1kHz            | 470         | nF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 5.0%            | Embossed, 2Kpcs  | (I)        |
|                  | C3216X7R105KEPSL |                | 1V, 1kHz            | 1.0         | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 5.0%            | (I)              |            |
|                  | C3216X7R225KEPS  | C3216X7R225KEP | 1V, 1kHz            | 2.2         | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 10.0%           | Embossed, 2Kpcs  | (I)        |
|                  | C3216X7R475□EPS  | C3216X7R475□EP | 1V, 1kHz            | 4.7         | uF   | ±10%,±20%           | 1.60        | ±0.30         | ±0.30  | 10.0%           | (I)              |            |
| 10V              | C3216X7R106□EPS  | C3216X7R106□EP | 1V, 1kHz            | 10          | uF   | ±10%,±20%           | 1.60        | ±0.30         | ±0.30  | 10.0%           | (II)*            |            |
|                  | C3216X7R225KDPS  | C3216X7R225KDP | 1V, 1kHz            | 2.2         | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 10.0%           | Embossed, 2Kpcs  | (I)        |
|                  | C3216X7R475□DPS  | C3216X7R475□DP | 1V, 1kHz            | 4.7         | uF   | ±10%,±20%           | 1.60        | ±0.30         | ±0.30  | 10.0%           | (I)              |            |
|                  | C3216X7R106□DPS  | C3216X7R106□DP | 1V, 1kHz            | 10          | uF   | ±10%,±20%           | 1.60        | ±0.30         | ±0.30  | 10.0%           | (II)             |            |
| 6.3V             | C3216X7R226□DPS  | C3216X7R226□DP | 0.5V, 120Hz         | 22          | uF   | ±10%,±20%           | 1.60        | ±0.30         | ±0.30  | 10.0%           | (II)*            |            |
|                  | C3216X7R106KCPS  | C3216X7R106KCP | 1V, 1kHz            | 10          | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 10.0%           | Embossed, 2Kpcs  | (I)        |
|                  | C3216X7R226KCPS  | C3216X7R226KCP | 0.5V, 120Hz         | 22          | uF   | ±10%                | 1.60        | ±0.30         | ±0.30  | 10.0%           | (II)             |            |

● C3225X7R Series (EIA1210)

| RV  | DARFON P/N       | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|-----|------------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|     |                  |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 50V | C3225X7R225MGPS  | C3225X7R225MGP | 1V, 1kHz            | 2.2         | uF   | ±20%                | 2.50        | ±0.3/±0.2     | ±0.20  | 5.0%      | Embossed, 1Kpcs  | (II)       |
|     | C3225X7R106KGWS  | C3225X7R106KGW | 1V, 1kHz            | 10          | uF   | ±10%                | 2.00        | ±0.3/±0.2     | ±0.20  | 15.0%     |                  | (II)       |
|     | C3225X7R106□GPS  | C3225X7R106□GP | 1V, 1kHz            | 10          | uF   | ±10%,±20%           | 2.50        | ±0.30         | ±0.30  | 10.0%     |                  | (II)       |
| 35V | C3225X7R106KNPS  | C3225X7R106KNP | 1V, 1kHz            | 10          | uF   | ±10%                | 2.50        | ±0.30         | ±0.30  | 10.0%     | Embossed, 1Kpcs  | (II)       |
| 25V | C3225X7R475KFPS  | C3225X7R475KFP | 1V, 1kHz            | 4.7         | uF   | ±10%                | 2.00        | ±0.3/±0.2     | ±0.20  | 10.0%     | Embossed, 2Kpcs  | (I)        |
|     | C3225X7R475KFPSL |                | 1V, 1kHz            | 4.7         | uF   | ±10%                | 2.50        | ±0.30         | ±0.30  | 10.0%     | Embossed, 1Kpcs  | (I)        |
|     | C3225X7R106KFPS  | C3225X7R106KFP | 1V, 1kHz            | 10          | uF   | ±10%                | 2.00        | ±0.3/±0.2     | ±0.30  | 10.0%     | Embossed, 2Kpcs  | (II)       |
|     | C3225X7R226□FPS  | C3225X7R226□FP | 0.5V, 120Hz         | 22          | uF   | ±10%,±20%           | 2.50        | ±0.3/±0.2     | ±0.20  | 10.0%     | Embossed, 1Kpcs  | (II)       |
| 16V | C3225X7R475KEPS  | C3225X7R475KEP | 1V, 1kHz            | 4.7         | uF   | ±10%                | 2.50        | ±0.3/±0.2     | ±0.20  | 5.0%      | Embossed, 1Kpcs  | (II)       |
|     | C3225X7R106KEPS  | C3225X7R106KEP | 1V, 1kHz            | 10          | uF   | ±10%                | 2.00        | ±0.3/±0.2     | ±0.20  | 10.0%     | Embossed, 2Kpcs  | (I)        |
|     | C3225X7R226□EPS  | C3225X7R226□EP | 0.5V, 120Hz         | 22          | uF   | ±10%,±20%           | 2.50        | ±0.3/±0.2     | ±0.30  | 10.0%     | Embossed, 1Kpcs  | (II)       |
| 10V | C3225X7R226KDPS  | C3225X7R226KDP | 0.5V, 120Hz         | 22          | uF   | ±10%                | 2.50        | ±0.3/±0.2     | ±0.20  | 10.0%     | Embossed, 1Kpcs  | (II)       |
|     | C3225X7R476□DPS  | C3225X7R476□DP | 0.5V, 120Hz         | 47          | uF   | ±10%,±20%           | 2.50        | ±0.3/±0.2     | ±0.20  | 10.0%     | (II)             |            |

□ Tolerance Code: J=±5%, K=±10%, M=±20%; Special tolerance on the request.

(II)\* High temperature load life test are applicable in rated voltage \*100%

## ■ X7S Series

### ● C0603X7S Series (EIA0201)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 16V  | C0603X7S104□ETS | C0603X7S104□ET | 1V, 1kHz            | 100         | nF   | ±10%,±20%           | 0.30        | ±0.05         | ±0.05  | 10.0%     | Paper, 15Kpcs    | (II)*      |
| 10V  | C0603X7S104KDTS | C0603X7S104KDT | 1V, 1kHz            | 100         | nF   | ±10%                | 0.30        | ±0.05         | ±0.05  | 10.0%     | Paper, 15Kpcs    | (II)       |
| 6.3V | C0603X7S104KCTS | C0603X7S104KCT | 1V, 1kHz            | 100         | nF   | ±10%                | 0.30        | ±0.05         | ±0.05  | 10.0%     | Paper, 15Kpcs    | (II)       |
|      | C0603X7S224KCTS | C0603X7S224KCT | 1V, 1kHz            | 220         | nF   | ±10%                | 0.30        | ±0.05         | ±0.05  | 12.5%     | Paper, 15Kpcs    | (II)*      |

### ● C1005X7S Series (EIA0402)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 10V  | C1005X7S105KDTS | C1005X7S105KDT | 1V, 1kHz            | 1.0         | uF   | ±10%                | 0.50        | ±0.10         | ±0.10  | 10.0%     | Paper, 10Kpcs    | (II)*      |
|      | C1005X7S225KDTS | C1005X7S225KDT | 1V, 1kHz            | 2.2         | uF   | ±10%                | 0.50        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |
| 6.3V | C1005X7S225KCTS | C1005X7S225KCT | 1V, 1kHz            | 2.2         | uF   | ±10%                | 0.50        | ±0.20         | ±0.20  | 10.0%     | Paper, 10Kpcs    | (II)       |

### ● C1608X7S Series (EIA0603)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 16V  | C1608X7S225KETS | C1608X7S225KET | 1V, 1kHz            | 2.2         | uF   | ±10%                | 0.80        | ±0.20         | ±0.20  | 10.0%     | Paper, 4Kpcs     | (II)       |
|      | C1608X7S475KETS | C1608X7S475KET | 1V, 1kHz            | 4.7         | uF   | ±10%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |
| 10V  | C1608X7S225KDTS | C1608X7S225KDT | 1V, 1kHz            | 2.2         | uF   | ±10%                | 0.80        | ±0.20         | ±0.20  | 10.0%     | Paper, 4Kpcs     | (II)       |
|      | C1608X7S475KDTS | C1608X7S475KDT | 1V, 1kHz            | 4.7         | uF   | ±10%                | 0.80        | ±0.20         | ±0.20  | 10.0%     |                  | (II)       |
| 6.3V | C1608X7S475KCTS | C1608X7S475KCT | 1V, 1kHz            | 4.7         | uF   | ±10%                | 0.80        | ±0.20         | ±0.20  | 10.0%     | Paper, 4Kpcs     | (II)       |

### ● C2012X7S Series (EIA0805)

| RV  | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|-----|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|     |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 50V | C2012X7S475KGPS | C2012X7S475KGP | 1V, 1kHz            | 4.7         | uF   | ±10%                | 1.25        | ±0.20         | ±0.20  | 10.0%     | Embossed, 3Kpcs  | (II)       |
| 25V | C2012X7S225KFPS | C2012X7S225KFP | 1V, 1kHz            | 2.2         | uF   | ±10%                | 1.25        | ±0.15         | ±0.15  | 10.0%     | Embossed, 3Kpcs  | (II)       |
|     | C2012X7S475KFPS | C2012X7S475KFP | 1V, 1kHz            | 4.7         | uF   | ±10%                | 1.25        | ±0.15/±0.20   | ±0.20  | 12.5%     |                  | (II)*      |
|     | C2012X7S106□FPS | C2012X7S106□FP | 1V, 1kHz            | 10          | uF   | ±10%,±20%           | 1.25        | ±0.20         | ±0.20  | 10.0%     |                  | (II)*      |
| 16  | C2012X7S106KEPS | C2012X7S106KEP | 1V, 1kHz            | 10          | uF   | ±10%,±20%           | 1.25        | ±0.15/±0.20   | ±0.20  | 10.0%     | Embossed, 3Kpcs  | (II)*      |

### ● C3225X7S Series (EIA1210)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 6.3V | C3225X7S107MCPS | C3225X7S107MCP | 0.5V, 120Hz         | 100         | uF   | ±20%                | 2.50        | ±0.30         | ±0.30  | 10.0%     | Embossed, 1Kpcs  | (II)*      |

□ Tolerance Code: K=±10%, M=±20%; Special tolerance on the request.

(II)\* High temperature load life test are applicable in rated voltage \*100%

- X7T Series
- C1608X7T Series (EIA0603)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 10V  | C1608X7T225MDTS | C1608X7T225MDT | 1V , 1kHz           | 2.2         | uF   | ±20%                | 0.80        | ±0.20         | ±0.20  | 10.0%     | Paper, 4Kpcs     | (II)       |
| 6.3V | C1608X7T106MCTS | C1608X7T106MCT | 1V , 1kHz           | 10          | uF   | ±20%                | 0.80        | ± 0.20        | ±0.20  | 10.0%     | Paper, 4Kpcs     | (II)       |

- C2012X7T Series (EIA0805)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 10V  | C2012X7T226MDPS | C2012X7T226MDP | 0.5V , 120Hz        | 22          | uF   | ±20%                | 1.25        | ± 0.20        | ±0.20  | 10.0%     | Embossed, 3Kpcs  | (II)*      |
| 6.3V | C2012X7T226MCPS | C2012X7T226MCP | 0.5V , 120Hz        | 22          | uF   | ±20%                | 1.25        | ± 0.20        | ±0.20  | 10.0%     | Embossed, 3Kpcs  | (II)       |

□ Tolerance Code: K=±10%, M=±20%; Special tolerance on the request.

(II)\* High temperature load life test are applicable in rated voltage \*100%



- X7U Series
- C3216X7U Series (EIA1206)

| RV   | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|------|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|      |                 |                |                     | Value       | Unit |                     |             | L/W           | Thick. |           |                  |            |
| 6.3V | C3216X7U476MCPS | C3216X7U476MCP | 0.5V , 120Hz        | 47          | uF   | ±20%                | 1.60        | ± 0.30        | ±0.30  | 15.0%     | Embossed, 2Kpcs  | (II)*      |
| 4V   | C3216X7U107MBPS | C3216X7U107MBP | 0.5V , 120Hz        | 100         | uF   | ±20%                | 1.60        | ± 0.30        | ±0.30  | 15.0%     | Embossed, 2Kpcs  | (II)*      |

□ Tolerance Code: K=±10%, M=±20%; Special tolerance on the request.

(II)\* High temperature load life test are applicable in rated voltage \*100%

- X8R Series
- C1608X8R Series (EIA0603)

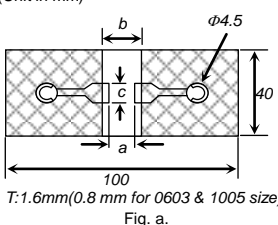
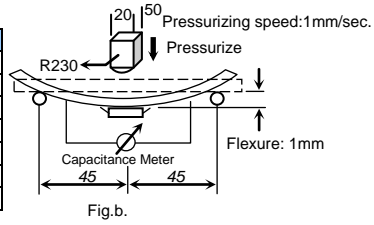
| RV  | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|-----|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|     |                 |                |                     | Value       | Unit |                     |             | LW            | Thick. |           |                  |            |
| 50V | C1608X8R104KGTS | C1608X8R104KGT | 1V , 1kHz           | 100         | nF   | ±10%                | 0.8         | ±0.15         | ±0.15  | 2.5%      | Paper, 4Kpcs     | (I)        |

- C2012X8R Series (EIA0805)

| RV  | DARFON P/N      | DARFON P/N 2   | Measuring Condition | Capacitance |      | Available Tolerance | Thick. (mm) | Tolerance(mm) |        | DF (max.) | Standard Packing | Test Spec. |
|-----|-----------------|----------------|---------------------|-------------|------|---------------------|-------------|---------------|--------|-----------|------------------|------------|
|     |                 |                |                     | Value       | Unit |                     |             | LW            | Thick. |           |                  |            |
| 50V | C2012X8R104KGPS | C2012X8R104KGP | 1V , 1kHz           | 100         | nF   | ±10%                | 1.25        | ±0.15         | ±0.15  | 5.0%      | Embossed, 3Kpcs  | (I)        |

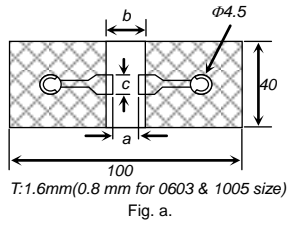
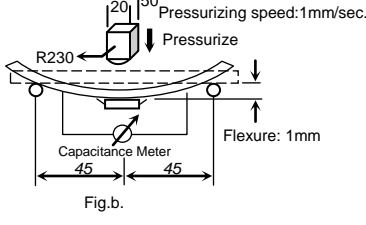
□ Tolerance Code: K=±10%, M=±20%; Special tolerance on the request.

- Test Spec.
- General Purpose (I)

| No   | Item                                    | Specification   |  | Test Method   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
|------|---|---|--|---|---|---|---|------|-----|-----|-----|------|-----|-----|-----|------|-----|-----|-----|------|-----|-----|------|------|-----|-----|-----|------|-----|-----|-----|------|-----|-----|-----|--|
|      |   | Temp. compensation type   | High dielectric constant type  |   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 1    | Operation Temperature Range             | NP0: -55 to 125 °C  | X5R: -55 to 85 °C<br>X6S: -55 to 105 °C<br>X7R/X7S/X7T/X7U : -55 to 125 °C<br>X8R -55 to 150 °C  | ---   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 2    | Rated Voltage                           | Shown in the table of "Part Number & Characteristic"  |  | The rated voltage is defined as the maximum voltage, which may be applied continuously to the capacitor.  |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 3    | Appearance                              | No defects or abnormalities.  |  | Visual inspection   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 4    | Dimensions                              | Within the specified dimension.   |  | Using calipers  |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 5    | Dielectric Strength                     | No defects or abnormalities.  |  | No failure shall be observed when 250% of the rated voltage is applied between the terminations for 1 to 5 seconds. The charge and discharge current is less than 50mA.   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 6    | Insulation Resistance ( I.R.)           | To apply rated voltage.<br>I.R. $\geq 10G\Omega$ or $R_C C_R \geq 500\Omega \cdot F$ (whichever is smaller)   |  | The insulation resistance shall be measured with a DC voltage not exceeding the rated voltage at 25 °C and 75%RH max, and within 1 minute of charging.  |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 7    | Capacitance                             | Within the specified tolerance<br>* X5R, X6S, X7RS, X7S, X7T, X7U and X8R at 1000 hours   |  | The capacitance / D.F. shall be measured at 25 °C at the frequency and voltage shown in the table of "Part Number & Characteristic".  |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 8    | Q/Dissipation Factor ( D.F.)            | NP0:<br>If $C \leq 30pF$ , $DF \leq 1/(400+20C)$ ,<br>C in pF<br>If $C > 30pF$ , $DF \leq 0.1\%$ .  | Shown in the table of "Part Number & Characteristic"   |   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 9    | Capacitance Temperature Characteristics | Capacitance change<br>NP0 within $0 \pm 30ppm/^\circ C$ under operating temperature range.  | Capacitance change<br>X5R/X7R/X8R within $\pm 15\%$<br>X6S/X7S within $\pm 22\%$<br>X7T: -33% to + 22%<br>X7U: -56% to + 22%   | 1. Temperature compensation type:<br>The capacitance value at 25 °C and 85 °C shall be measured and calculated from the formula given below.<br>$T.C. = (C_{85} - C_{25}) / C_{25} \cdot \Delta T \cdot 10^6 (PPM/^\circ C)$<br>2. High dielectric constant type:<br>The ranges of capacitance change compared with the 25 °C value over the temperature ranges shall be within the specified ranges.<br>Measurement Voltage : Less than 1.0Vrms<br>(Refer to the electrical characteristics) |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 10   | Termination Strength                    | No removal of the terminations or marking defect.   |  | Apply a parallel force of 5N to a PCB mounted sample for $10 \pm 1$ sec.<br>*2N for 0603 (EIA 0201).  |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 11   | Deflection (Bending Strength)           | No cracking or marking defects shall occur at 1mm deflection.<br>Capacitance change:<br>NP0: within $\pm 5\%$ or $\pm 0.5pF$ . (whichever is larger)<br>X5R, X6S, X7R, X7S, X7T, X7U, X8R within $\pm 12.5\%$ |  | Solder the capacitor to the test jig (glass epoxy boards) shown in Fig.a using a SAC305(Sn96.5Ag3.0Cu0.5) solder (then let sit for $24 \pm 2$ hours for X5R, X6S, X7R, X7S, X7T, X7U and X8R).<br>Then apply a force in the direction shown in Fig.b. The soldering shall be done with the reflow method and shall be conducted with care so that the soldering is uniform and free of defects such as heat shock.  |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
|      |   | (Unit in mm)<br><br>T: 1.6mm (0.8 mm for 0603 & 1005 size)<br>Fig. a.  | <table border="1"> <thead> <tr> <th>Size</th> <th>a</th> <th>b</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>0603</td> <td>0.3</td> <td>0.9</td> <td>0.3</td> </tr> <tr> <td>1005</td> <td>0.4</td> <td>1.5</td> <td>0.5</td> </tr> <tr> <td>1608</td> <td>1.0</td> <td>3.0</td> <td>1.2</td> </tr> <tr> <td>2012</td> <td>1.2</td> <td>4.0</td> <td>1.65</td> </tr> <tr> <td>3216</td> <td>2.2</td> <td>5.0</td> <td>2.0</td> </tr> <tr> <td>4520</td> <td>3.5</td> <td>7.0</td> <td>2.5</td> </tr> <tr> <td>4532</td> <td>3.5</td> <td>7.0</td> <td>3.7</td> </tr> </tbody> </table> | Size  | a   | b | C | 0603 | 0.3 | 0.9 | 0.3 | 1005 | 0.4 | 1.5 | 0.5 | 1608 | 1.0 | 3.0 | 1.2 | 2012 | 1.2 | 4.0 | 1.65 | 3216 | 2.2 | 5.0 | 2.0 | 4520 | 3.5 | 7.0 | 2.5 | 4532 | 3.5 | 7.0 | 3.7 | <br>Fig. b. |
| Size | a                                       | b   | C  |   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 0603 | 0.3                                     | 0.9   | 0.3  |   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 1005 | 0.4                                     | 1.5   | 0.5  |   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 1608 | 1.0                                     | 3.0   | 1.2  |   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 2012 | 1.2                                     | 4.0   | 1.65   |   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 3216 | 2.2                                     | 5.0   | 2.0  |   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 4520 | 3.5                                     | 7.0   | 2.5  |   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 4532 | 3.5                                     | 7.0   | 3.7  |   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 12   | Solderability of Termination            | 90% of the terminations are to be soldered evenly and continuously.   |  | Immerse the test capacitor into a methanol solution containing rosin for 3 to 5 seconds, preheat it 150 to 180 °C for 2 to 3 minutes and immerse it into SAC305(Sn96.5Ag3.0Cu0.5) solder of $245 \pm 5^\circ C$ for $3 \pm 1$ seconds.  |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
| 13   | Resistance to Soldering Heat            | Appearance  | No marking defects   | *Preheat the capacitor at 120 to 150 °C for 1 minute.   |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
|      |   | Cap. Change   | NP0 within $\pm 2.5\%$ or 0.25pF ( whichever is larger )<br>X5R/X6S/X7R/X7S/X7T/X7U/ X8R within $\pm 7.5\%$  | Immerse the capacitor in a SAC305(Sn96.5Ag3.0Cu0.5) solder solution at $270 \pm 5^\circ C$ for $10 \pm 1$ seconds. Let sit at room temperature for $24 \pm 2$ hours, then measure.  |   |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
|      |   | Q/D.F.  | If $C \leq 30pF$ , $DF \leq 1/(400+20C)$<br>If $C > 30pF$ , $DF \leq 0.1\%$  | To satisfy the specified initial spec.  | * Preheat 150 to 200 °C for size $\geq 3216$ .  |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |
|      |   | I.R.  | I.R. $\geq 10,000M\Omega$ or $R_C C_R \geq 500\Omega \cdot F$ (whichever is smaller)   | I.R. $\geq 10,000M\Omega$ or $R_C C_R \geq 500\Omega \cdot F$ (whichever is smaller)  | *High dielectric constant type:<br>Initial measurement : perform a heat treatment at $150 \pm 0/-10^\circ C$ for one hour and then let sit for $24 \pm 2$ hours at room temperature. Perform the initial measurement. |   |   |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |     |     |     |      |     |     |     |  |

| No | Item                              | Specification           |   | Test Method  |   |
|----|-----------------------------------|-------------------------|---|--|---|
|    |                                   | Temp. compensation type | High dielectric constant type   |  |   |
| 14 | Temperature cycle (Thermal shock) | Appearance              | No marking defects  |  | Solder the capacitor to supporting jig (Glass epoxy board) and perform the five cycles according to the four heat treatments listed in the following table. Let sit for 24±2hrs at room temperature, then measure.<br>Step 1: Minimum operating temperature 30±3min<br>Step 2: Room temperature 2~3 min<br>Step 3: Maximum operating temperature 30±3min<br>Step 4: Room temperature 2~3min<br>*High dielectric constant type:<br>Initial measurement: perform a heat treatment at 150±10°C for one hour and then let sit for 24±2 hours at room temp. Perform the initial measurement.         |
|    |                                   | Cap. Change             | NP0 within ±2.5% or 0.25pF ( whichever is larger )  | X5R/X6S/X7R/X7S/X7T/X8R within ±7.5%<br>X7U within ±30%          |   |
|    |                                   | Q/D.F.                  | If C ≤ 30pF, DF ≤ 1/(400+20C)<br>If C > 30pF, DF ≤ 0.1%   | To satisfy the specified initial spec.                           |   |
|    |                                   | I.R.                    | I.R. ≥ 10GΩ or R <sub>C</sub> R ≥ 500Ω-F. (whichever is smaller)  | I.R. ≥ 10GΩ or R <sub>C</sub> R ≥ 500Ω-F. (whichever is smaller) |   |
| 15 | Humidity load                     | Appearance              | No marking defects  |  | Apply the rated voltage at 40±2°C and 90 to 95% humidity for 500±12 hours. The charge / discharge current is less than 50mA.<br>[Temperature compensation type]<br>Remove and let sit for 24±2 hours at room temperature, then measure.<br>[High dielectric constant type]<br>*Initial measurement<br>Perform a heat treatment at 150+0/-10°C for one hour and then let sit for 24±2 hours at room temperature.<br>Perform the initial measurement.<br>*Measurement after test<br>Perform a heat treatment and then let sit for 24±2 hours at room temperature, then measure.                   |
|    |                                   | Cap. Change             | NP0 within ±7.5% or 0.75pF ( whichever is larger )  | X5R/X6S/X7R/X7S/X7T/X7U/X8R within ±12.5%                        |   |
|    |                                   | Q/D.F.                  | If C > 30pF, DF ≤ 0.5%<br>If C ≤ 30pF, DF ≤ 1/(100+10xC/3)<br>C in pF   | X5R/X6S/X7R/X7S/X7T/X7U/X8R 200% max of initial spec..           |   |
|    |                                   | I.R.                    | I.R. ≥ 500MΩ or R <sub>C</sub> R ≥ 25Ω-F. (whichever is smaller)  | I.R. ≥ 500MΩ or R <sub>C</sub> R ≥ 25Ω-F. (whichever is smaller) |   |
| 16 | High temperature load life test   | Appearance              | No marking defects  |  | Apply 200%of the rated voltage for 1000±12 hours at the maximum operating temperature ± 3°C. The charge / discharge current is less than 50mA.<br>[Temperature compensation type]<br>Remove and let sit for 24±2 hours at room temperature, then measure.<br>[High dielectric constant type]<br>*Initial measurement<br>Perform a heat treatment at 150+0/-10°C for one hour and then let sit for 24±2 hours at room temperature.<br>Perform the initial measurement.<br>*Measurement after test<br>Perform a heat treatment and then let sit for 24±2 hours at room temperature, then measure. |
|    |                                   | Cap. Change             | NP0 within ±7.5% or 0.75pF ( whichever is larger )  | X5R/X6S/X7R/X7S/X7T/X7U/X8R within ±12.5%                        |   |
|    |                                   | Q/D.F.                  | If C > 30pF, DF ≤ 0.3%<br>If 10pF < C ≤ 30pF, DF ≤ 1/(275+5xC/2)<br>If C ≤ 10pF, DF ≤ 1/(200+10C),<br>C in pF | X5R/X6S/X7R/X7S/X7T/X7U/X8R 200% max of initial spec.            |   |
|    |                                   | I.R.                    | More than 1GΩ or R <sub>C</sub> R ≥ 50Ω-F (whichever is less.)  | More than 1GΩ or R <sub>C</sub> R ≥ 50Ω-F (whichever is less.)   |   |

● General Purpose (II)

| No | Item                                    | Specification  | Test Method   |
|----|---|--|---|
| 1  | Operation Temperature Range             | X5R: -55 to 85 °C<br>X6S: -55 to 105 °C<br>X7R/X7S/X7T/X7U: -55 to 125 °C<br>X8R: -55 to 150 °C  | ---   |
| 2  | Rated Voltage                           | Shown in the table of "Part Number & Characteristic"   | The rated voltage is defined as the maximum voltage, which may be applied continuously to the capacitor.  |
| 3  | Appearance                              | No defects or abnormalities.   | Visual inspection   |
| 4  | Dimensions                              | Within the specified dimension.  | Using calipers  |
| 5  | Dielectric Strength                     | No defects or abnormalities.   | No failure shall be observed when 250% of the rated voltage is applied between the terminations for 1 to 5 seconds. The charge and discharge current is less than 50mA.   |
| 6  | Insulation Resistance ( I.R.)           | $R_{CR} \geq 50\Omega \cdot F$   | The insulation resistance shall be measured with a DC voltage not exceeding the rated voltage at 25°C and 75%RH max, and within 1 minute of charging, provided the charge/discharge current is less than 50 mA.   |
| 7  | Capacitance                             | Within the specified tolerance<br>* X5R, X6S, X7R, X7S, X7T, X7U and X8R at 1000 hours   | The capacitance / D.F. shall be measured at 25°C at the frequency and voltage shown in the table of "Part Number & Characteristic".   |
| 8  | Q/Dissipation Factor ( D.F.)            | Shown in the table of "Part Number & Characteristic"   |   |
| 9  | Capacitance Temperature Characteristics | Capacitance change<br>X5R/X7R/X8R within $\pm 15\%$ , X6S/X7S within $\pm 22\%$<br>X7U: -56% to + 22%<br>X7T: -33% to + 22%  | The ranges of capacitance change compared with the 25°C value over the temperature ranges shall be within the specified ranges.<br>Measurement Voltage : Less than 1.0Vrms<br>(Refer to the electrical characteristics)   |
| 10 | Termination Strength                    | No removal of the terminations or marking defect.  | Apply a parallel force of 5N to a PCB mounted sample for $10 \pm 1$ sec. *2N for 0603 (EIA 0201).   |
| 11 | Deflection (Bending Strength)           | No cracking or marking defects shall occur at 1mm deflection.<br>Capacitance change:<br>X5R, X6S, X7R, X7S, X7T, X7U, X8R :within $\pm 12.5\%$<br><br>(Unit in mm)<br><br>T:1.6mm(0.8 mm for 0603 & 1005 size)<br>Fig. a. | Solder the capacitor to the test jig (glass epoxy boards) shown in Fig.a using a SAC305(Sn96.5Ag3.0Cu0.5) solder (then let sit for 24±2 hours for X5R, X6S, X7R, X7S, X7T, X7U and X8R).<br>Then apply a force in the direction shown in Fig.b. The soldering shall be done with the reflow method and shall be conducted with care so that the soldering is uniform and free of defects such as heat shock.<br><br>Fig.b. |
| 12 | Solderability of Termination            | 90% of the terminations are to be soldered evenly and continuously.  | Immerse the test capacitor into a methanol solution containing rosin for 3 to 5 seconds, preheat it 150 to 180°C for 2 to 3 minutes and immerse it into SAC305(Sn96.5Ag3.0Cu0.5) solder of $245 \pm 5^\circ\text{C}$ for $3 \pm 1$ seconds.   |
| 13 | Resistance to Soldering Heat            | Appearance   | No marking defects  |
|    |   | Cap. Change  | X5R/X6S/X7R/X7S/X7T/X7U/X8R within $\pm 7.5\%$  |
|    |   | D.F.   | To satisfy the specified initial spec.  |
|    |   | I.R.   | $R_{CR} \geq 50\Omega \cdot F$  |

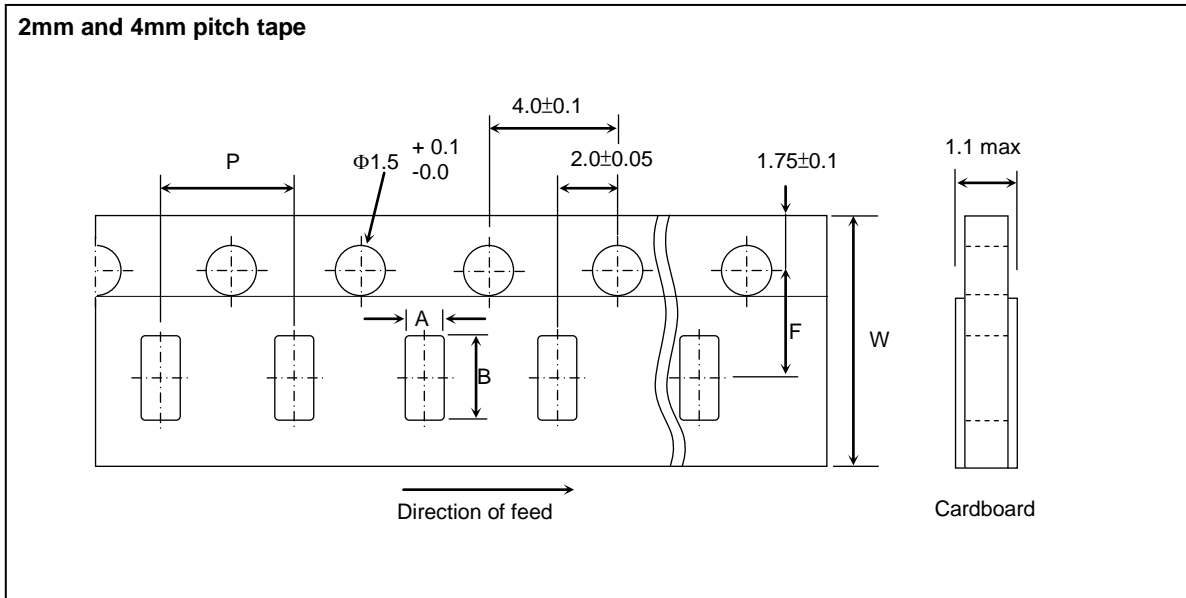
| No | Item                                 | Specification | Test Method  |
|----|--------------------------------------|---------------|--|
| 14 | Temperature cycle<br>(Thermal shock) | Appearance    | Solder the capacitor to supporting jig (Glass epoxy board) and perform the five cycles according to the four heat treatments listed in the following table.<br>Let sit for 24±2hrs at room temperature, then measure.<br>Step 1: Minimum operating temperature 30±3min<br>Step 2: Room temperature 2-3 min<br>Step 3: Maximum operating temperature 30±3min<br>Step 4: Room temperature 2-3min<br>* Initial measurement: perform a heat treatment at 150±10°C for one hour and then let sit for 24±2 hours at room temp. Perform the initial measurement.  |
|    |                                      | Cap. Change   |  |
|    |                                      | Q/D.F.        |  |
|    |                                      | I.R.          |  |
| 15 | Humidity load                        | Appearance    | Apply the rated voltage at 40±2°C and 90 to 95% humidity for 500±12 hours. The charge / discharge current is less than 50mA.<br>*Initial measurement<br>Perform a heat treatment at 150+0/-10°C for one hour and then let sit for 24±2 hours at room temperature.<br>Perform the initial measurement.<br>*Measurement after test<br>Perform a heat treatment and then let sit for 24±2 hours at room temperature, then measure.  |
|    |                                      | Cap. Change   |  |
|    |                                      | Q/D.F.        |  |
|    |                                      | I.R.          |  |
| 16 | High temperature<br>load life test   | Appearance    | Apply 150% of the rated voltage for 1000±12 hours at the maximum operating temperature ± 3°C. The charge / discharge current is less than 50mA.<br>*Initial measurement<br>Perform a heat treatment at 150+0/-10°C for one hour and then let sit for 24±2 hours at room temperature.<br>Perform the initial measurement.<br>*Measurement after test<br>Perform a heat treatment and then let sit for 24±2 hours at room temperature, then measure.<br>* Some of the parts are applicable in rated voltage *100%. Please refer to "Part Number & Characteristic" with (II)* labeled in "Test Spec." |
|    |                                      | Cap. Change   |  |
|    |                                      | D.F.          |  |
|    |                                      | I.R.          |  |

## Package

- Tape and reel packaging**

Tape and reel packaging is currently the most promising system for high-speed production. A typical 180mm (7 inch) diameter reel contains 1,500 to 15,000 capacitors, 250mm (10 inch) contains 10,000 capacitors, and 330mm (13 inch) contains 10,000 to 50,000 capacitors. Three standard sizes are available in taped and reeled package either with paper carrier tapes or embossed tapes.

### 【Paper tape specifications】

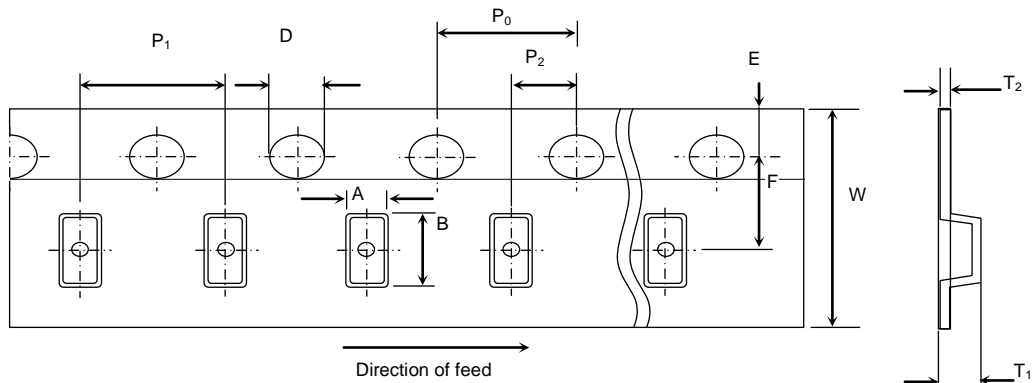


| SYMBOL | PRODUCT SIZE CODE |            |                      |            |                         |            |                         |            |                         |            | UNIT |
|--------|-------------------|------------|----------------------|------------|-------------------------|------------|-------------------------|------------|-------------------------|------------|------|
|        | C0603(0201)       |            | C1005(0402) Standard |            | C1005(0402) Special (1) |            | C1005(0402) Special (2) |            | C1005(0402) Special (3) |            |      |
|        | SIZE              | TOL.       | SIZE                 | TOL.       | SIZE                    | TOL.       | SIZE                    | TOL.       | SIZE                    | TOL.       |      |
| A      | 0.38              | $\pm 0.04$ | 0.65                 | $\pm 0.10$ | 0.70                    | $\pm 0.10$ | 0.72                    | $\pm 0.10$ | 0.80                    | $\pm 0.10$ | mm   |
| B      | 0.68              | $\pm 0.04$ | 1.15                 | $\pm 0.10$ | 1.19                    | $\pm 0.10$ | 1.25                    | $\pm 0.10$ | 1.35                    | $\pm 0.10$ | mm   |
| F      | 3.5               | $\pm 0.05$ | 3.5                  | $\pm 0.05$ | 3.5                     | $\pm 0.05$ | 3.5                     | $\pm 0.05$ | 3.5                     | $\pm 0.05$ | mm   |
| P      | 2                 | $\pm 0.10$ | 2                    | $\pm 0.10$ | 2                       | $\pm 0.10$ | 2                       | $\pm 0.10$ | 2                       | $\pm 0.10$ | mm   |
| W      | 8                 | $\pm 0.20$ | 8                    | $\pm 0.20$ | 8                       | $\pm 0.20$ | 8                       | $\pm 0.20$ | 8                       | $\pm 0.20$ | mm   |

| SYMBOL | PRODUCT SIZE CODE (EIA) |            |                          |            |                            |            |              |            |              |            | UNIT |
|--------|-------------------------|------------|--------------------------|------------|----------------------------|------------|--------------|------------|--------------|------------|------|
|        | C1608(0603) Standard    |            | C1608 (0603) Special (1) |            | C1608 (0603) Special (2/3) |            | C2012 (0805) |            | C3216 (1206) |            |      |
|        | SIZE                    | TOL.       | SIZE                     | TOL.       | SIZE                       | TOL.       | SIZE         | TOL.       | SIZE         | TOL.       |      |
| A      | 1.0                     | $\pm 0.2$  | 1.0                      | $\pm 0.2$  | 1.1                        | $\pm 0.2$  | 1.5          | $\pm 0.2$  | 1.9          | $\pm 0.2$  | mm   |
| B      | 1.8                     | $\pm 0.2$  | 1.8                      | $\pm 0.2$  | 1.9                        | $\pm 0.2$  | 2.3          | $\pm 0.2$  | 3.6          | $\pm 0.2$  | mm   |
| F      | 3.5                     | $\pm 0.05$ | 3.5                      | $\pm 0.05$ | 3.5                        | $\pm 0.05$ | 3.5          | $\pm 0.05$ | 3.5          | $\pm 0.05$ | mm   |
| P      | 4                       | $\pm 0.1$  | 4                        | $\pm 0.1$  | 4                          | $\pm 0.1$  | 4            | $\pm 0.1$  | 4            | $\pm 0.1$  | mm   |
| W      | 8                       | $\pm 0.2$  | 8                        | $\pm 0.2$  | 8                          | $\pm 0.2$  | 8            | $\pm 0.2$  | 8            | $\pm 0.2$  | mm   |

**【 Embossed tape specifications 】**

1mm and 4mm and 8mm pitch tape



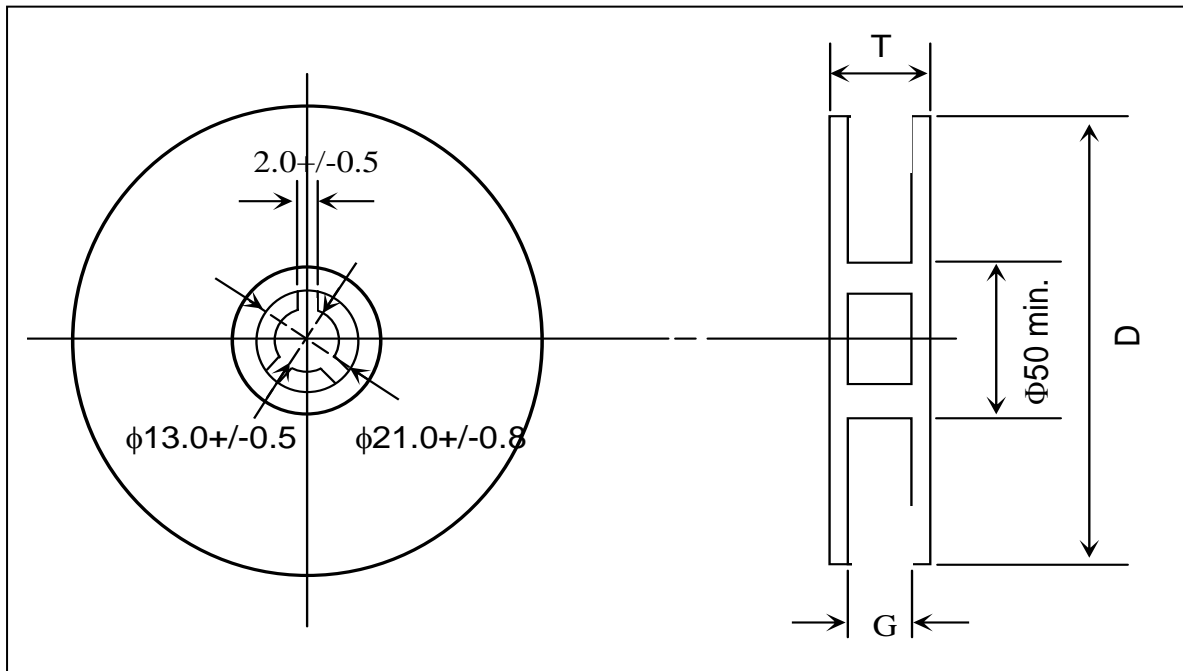
For  $W=8\text{mm}$ :  $T_1=2.5\text{mm max.}$

For  $W=12\text{mm}$ :  $T_1=4.5\text{mm}$

| DIMENSION<br>(mm) | PRODUCT SIZE CODE  |                    |                    |                    |                    |                    |
|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                   | 4 mm tape          |                    |                    |                    | 8 mm tape          |                    |
|                   | 1608<br>(0603)     | 2012<br>(0805)     | 3216<br>(1206)     | 3225<br>(1210)     | 4520<br>(1808)     | 4532<br>(1812)     |
| $P_1$             | $4\pm 0.1$         | $4\pm 0.1$         | $4\pm 0.1$         | $4\pm 0.1$         | $8\pm 0.1$         | $8\pm 0.1$         |
| $P_0$             | $4\pm 0.1$         | $4\pm 0.1$         | $4\pm 0.1$         | $4\pm 0.1$         | $4\pm 0.1$         | $4\pm 0.1$         |
| $P_2$             | $2\pm 0.05$        | $2\pm 0.05$        | $2\pm 0.05$        | $2\pm 0.05$        | $2\pm 0.05$        | $2\pm 0.05$        |
| $A$               | $1.2\pm 0.2$       | $1.45\pm 0.2$      | $1.9\pm 0.2$       | $2.8\pm 0.2$       | $2.3\pm 0.2$       | $3.6\pm 0.2$       |
| $B$               | $2.0\pm 0.2$       | $2.3\pm 0.2$       | $3.5\pm 0.2$       | $3.6\pm 0.2$       | $4.9\pm 0.2$       | $4.9\pm 0.2$       |
| $W$               | $8\pm 0.3$         | $8\pm 0.2$         | $8\pm 0.2$         | $8\pm 0.2$         | $12\pm 0.2$        | $12\pm 0.2$        |
| $E$               | $1.75\pm 0.1$      | $1.75\pm 0.1$      | $1.75\pm 0.1$      | $1.75\pm 0.1$      | $1.75\pm 0.1$      | $1.75\pm 0.1$      |
| $F$               | $3.5\pm 0.05$      | $3.5\pm 0.05$      | $3.5\pm 0.05$      | $3.5\pm 0.05$      | $5.5\pm 0.05$      | $5.5\pm 0.05$      |
| $D$               | 1.5<br>(+0.1/-0.0) | 1.5<br>(+0.1/-0.0) | 1.5<br>(+0.1/-0.0) | 1.5<br>(+0.1/-0.0) | 1.5<br>(+0.1/-0.0) | 1.5<br>(+0.1/-0.0) |
| $T_1$             | 1.4 max.           | 2.5 max.           | 2.5 max.           | 2.5 max.           | 4.5                | 4.5                |
| $T_2$             | $0.25\pm 0.1$      | $0.305\pm 0.1$     | $0.30\pm 0.1$      | $0.30\pm 0.1$      | $0.30\pm 0.1$      | $0.30\pm 0.1$      |



**【Reel specifications】**



| TAPE WIDTH<br>(mm) | G<br>(mm)      | T max.<br>(mm) | D<br>(mm) |
|--------------------|----------------|----------------|-----------|
| 4                  | $5.0 \pm 1.5$  | 8.0            | 180       |
| 8                  | $10.0 \pm 1.5$ | 14.5           | 180       |
| 8                  | $10.0 \pm 1.5$ | 14.5           | 250       |
| 8                  | $10.0 \pm 1.5$ | 14.5           | 330       |
| 12                 | $14.0 \pm 1.5$ | 18.5           | 180       |

**【Thickness and Packing Amount】**

| Thickness |           |              | Amount per reel |                   |              |          |
|-----------|-----------|--------------|-----------------|-------------------|--------------|----------|
| Code      | Spec.(mm) | Size (EIA)   | 180 mm (7")     |                   | 330 mm (13") |          |
|           |           |              | Paper           | Embossed          | Paper        | Embossed |
| Z         | 0.20      | 0402 (01005) | 20K             | 40K <sup>#1</sup> |              |          |
| A         | 0.30      | 0603 (0201)  | 15K             |                   | 50K          |          |
|           |           | 1005 (0402)  | 15K             |                   | 50K          |          |
| B         | 0.50      | 1005 (0402)  | 10K             |                   | 50K          |          |
| Q         | 0.45      | 1005 (0402)  | 10K             |                   | 50K          |          |
|           |           | 1608 (0603)  | 4K              |                   | 15K          |          |
| C         | 0.60      | 2012 (0805)  | 4K              |                   | 15K          |          |
|           |           | 3216 (1206)  | 4K              |                   | 15K          |          |
| D         | 0.80      | 1608 (0603)  | 4K              | 4K                | 15K          |          |
|           |           | 2012 (0805)  | 4K              |                   | 15K          |          |
|           |           | 3216 (1206)  | 4K              |                   | 15K          |          |
| E         | 0.85      | 2012 (0805)  | 4K              |                   | 15K          |          |
|           |           | 3216 (1206)  | 4K              |                   | 15K          |          |
|           |           | 3225 (1210)  |                 | 3K                |              | 10K      |
| I         | 0.95      | 4532 (1812)  |                 | 1K                |              |          |
|           |           | 2012 (0805)  |                 | 3K                |              |          |
| F         | 1.15      | 3216 (1206)  |                 | 3K                |              |          |
|           |           | 4520 (1808)  |                 | 3K                |              | 10K      |
| G         | 1.25      | 2012 (0805)  |                 | 2K/3K             |              | 10K      |
|           |           | 3216 (1206)  |                 | 3K                |              | 10K      |
|           |           | 3225 (1210)  |                 | 3K                |              |          |
|           |           | 4520 (1808)  |                 | 2K/3K             |              |          |
|           |           | 4532 (1812)  |                 | 1K                |              |          |
|           |           | 3225 (1210)  |                 | 3K                |              |          |
| L         | 1.60      | 3216 (1206)  |                 | 2K                |              |          |
|           |           | 3225 (1210)  |                 | 2K                |              |          |
|           |           | 4520 (1808)  |                 | 2K                |              |          |
|           |           | 4532 (1812)  |                 | 1K                |              |          |
| N         | 2.00      | 3216 (1206)  |                 | 2K/3K             |              |          |
|           |           | 3225 (1210)  |                 | 1K/2K             |              |          |
|           |           | 4520 (1808)  |                 | 1K                |              |          |
|           |           | 4532 (1812)  |                 | 1K                |              |          |
| P         | 2.50      | 3225 (1210)  |                 | 500pcs/1K         |              |          |

#1: 4mm width 1mm pitch Embossed Taping

**【Packing Rule】**

| EIA SIZE | Tape         | Reel Size | Reels/Box | Boxes/ Carton |
|----------|--------------|-----------|-----------|---------------|
| 01005    | Emboss       | 7"        | 8         | 12            |
| 01005    | Paper        | 7"        | 5         | 12            |
| 0201     | Paper        | 7"        | 5         | 12            |
| 0402     | Paper        | 7"        | 5         | 12            |
| 0603     | Paper/Emboss | 7"        | 5         | 12            |
| 0805     | Paper/Emboss | 7"        | 5         | 12            |
| 1206     | Paper/Emboss | 7"        | 5         | 12            |
| 1210     | Emboss       | 7"        | 5         | 12            |
| 1808     | Emboss       | 7"        | 5         | 12            |
| 1812     | Emboss       | 7"        | 5         | 12            |

## Others

### 【Storage】

1. The chip capacitors shall be packaged in carrier tapes or bulk cases.
2. Keep storage place temperatures from +5°C to +35°C, humidity from 45 to 70% RH.
3. The storage atmosphere must be free of gas containing sulfur and chlorine. Also, avoid exposing the product to saline moisture. If the product is exposed to such atmospheres, the terminations will oxidize and solderability will be affected.
4. The solderability is assured for 12 months from our final inspection date if the above storage condition is followed.

### 【Circuit Design】

1. Once application and assembly environments have been checked, the capacitor may be used in conformance with the rating and performance, which are provided in both the catalog and the specifications. Exceeding the specifications listed may result in inferior performance. It may also cause a short, open, smoking, or flaming to occur, etc.
2. Please use the capacitors in conformance with the operating temperature provided in both the catalog and the specifications. Be especially cautious not to exceed the maximum temperature. In the situation the maximum temperature set forth in both the catalog and specifications is exceeded, the capacitor's insulation resistance may deteriorate, power may suddenly surge and short-circuit may occur. The loss of capacitance will occur, and may self-heat due to equivalent series resistance when alternating electric current is passed through. As this effect becomes critical in high frequency circuits, please exercise with caution. When using the capacitor in a (self-heating) circuit, please make sure the surface of the capacitor remains under the maximum temperature for usage. Also, please make certain temperature rise remain below 20°C.
3. Please keep voltage under the rated voltage, which is applied to the capacitor. Also, please make certain the peak voltage remains below the rated voltage when AC voltage is super-imposed to the DC voltage. In the situation where AC or pulse voltage is employed, ensure average peak voltage does not exceed the rated voltage. Exceeding the rated voltage provided in both catalog and specifications may lead to defective withstanding voltage or, in worse case situations, may cause the capacitor to burn out.
4. It's is a common phenomenon of high-dielectric products to have a deteriorated amount of static electricity due to the application of DC voltage.

**【Handling】**

Chip capacitors should be handled with care to avoid contamination or damage. The use of vacuum pick-up or plastic tweezers is recommended for manual placement. Tape and reeled packages are suitable for automatic pick and placement machine.

**【Flux】**

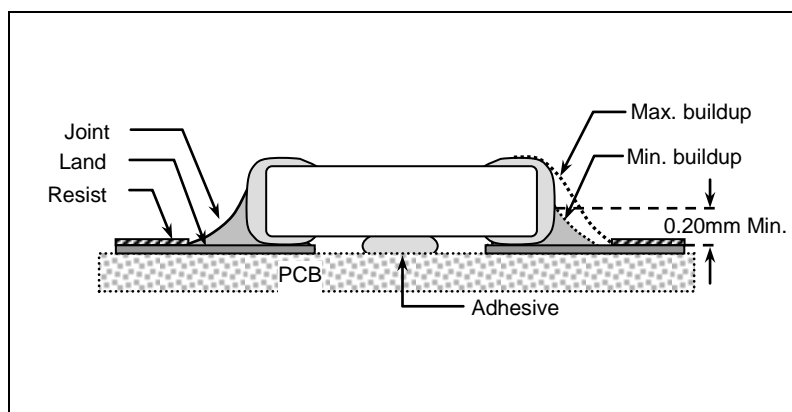
1. An excessive amount of flux or too rapid temperature rise can cause solvent burst, solder can generate a large quantity of gas. The gas can spread small solder particles to cause solder balling effect or bridging problem.
2. Flux containing too high of a percentage of halide may cause corrosion of termination unless sufficient cleaning is applied.
3. Use rosin-type flux. Highly acidic flux (halide content less than 0.2wt%) is not recommended.
4. The water soluble flux causes deteriorated insulation resistance between outer terminations unless sufficiently cleaned.

**【Component Spacing】**

For wave soldering components, the spacing must be sufficient far apart to prevent bridging or shadowing. This is not so important for reflow process but enough space for rework should be considered. The suggested spacing for reflow soldering and wave soldering is 0.5mm and 1.0mm, respectively.

**【Solder Fillet】**

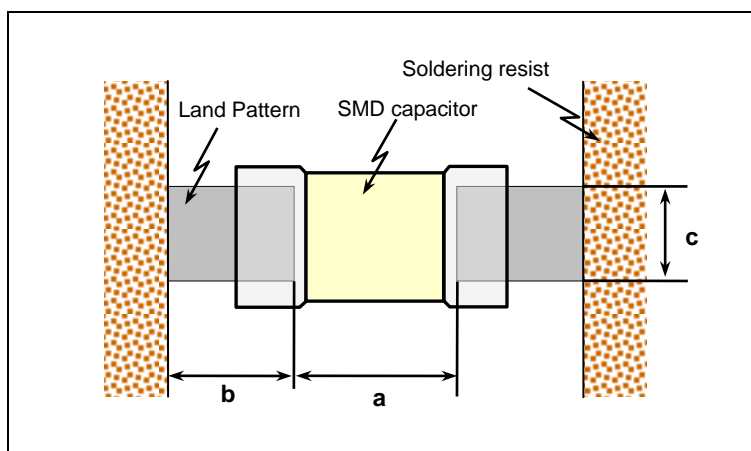
Too much solder amount may increase solder stress and cause crack risk. Insufficient solder amount may reduce adhesive strength and cause parts falling off PCB. When soldering, confirm that the solder is placed over 0.2mm of the surface of the terminations.



## 【Recommended Land Pattern Dimensions】

When mounting the capacitor to substrate, it's important to consider that the amount of solder (size of fillet) used has a direct effect upon the capacitor once it's mounted.

1. The greater the amount of solder, the greater the stress to the elements, as this may cause the substrate to break or crack.
2. In the situation where two or more devices are mounted onto a common land, separate the device into exclusive pads by using soldering resist.
3. Land width equal to or less than component. It is permissible to reduce land width to 80% of component width.



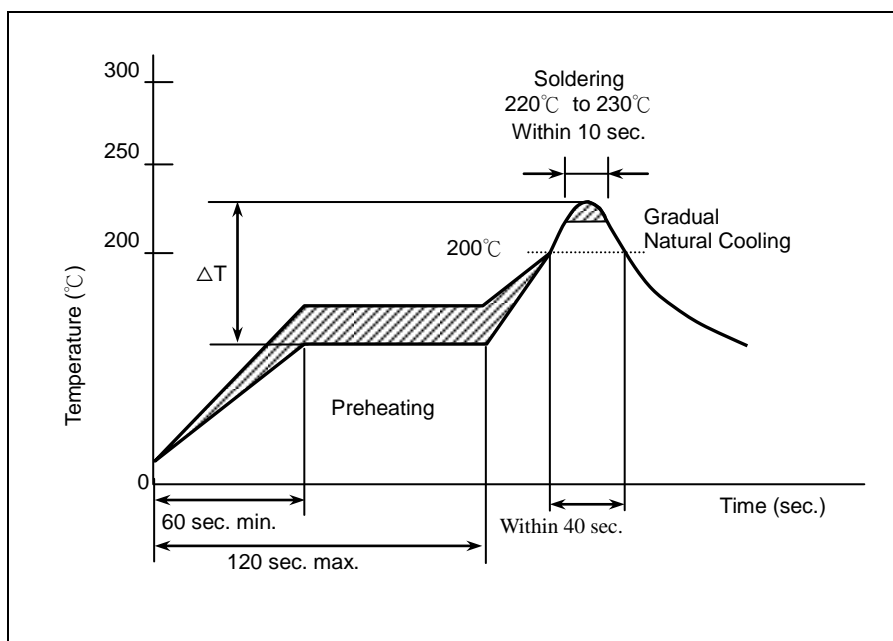
| Size mm (EIA) | L x W (mm)<br>(Dimension tolerance) | a (mm)       | b (mm)       | c (mm)       |
|---------------|-------------------------------------|--------------|--------------|--------------|
| 0402 (01005)  | 0.4*0.2                             | 0.16 to 0.20 | 0.12 to 0.18 | 0.20 to 0.23 |
| 0603 (0201)   | 0.6*0.3                             | 0.15 to 0.35 | 0.2 to 0.3   | 0.25 to 0.3  |
| 1005 (0402)   | 1.0*0.5<br>(within±0.10)            | 0.3 to 0.5   | 0.35 to 0.45 | 0.4 to 0.5   |
|               | 1.0*0.5<br>(±0.15/±0.20)            | 0.4 to 0.6   | 0.4 to 0.5   | 0.5 to 0.6   |
| 1608 (0603)   | 1.6*0.8<br>(within±0.10)            | 0.7 to 1.0   | 0.6 to 0.8   | 0.7 to 0.8   |
|               | 1.6*0.8<br>(±0.15/±0.20/±0.25)      | 0.8 to 1.1   | 0.7 to 0.9   | 0.8 to 0.9   |
| 2012 (0805)   | 2.0*1.25                            | 1.0 to 1.3   | 0.7 to 0.9   | 1.0 to 1.2   |
| 3216 (1206)   | 3.2*1.6                             | 2.1 to 2.5   | 1.0 to 1.2   | 1.3 to 1.6   |
| 3225 (1210)   | 3.2*2.5                             | 2.1 to 2.5   | 1.0 to 1.2   | 2.0 to 2.5   |
| 4520 (1808)   | 4.5*2.0                             | 3.2 to 3.8   | 1.2 to 1.4   | 1.7 to 2.0   |
| 4532 (1812)   | 4.5*3.2                             | 3.2 to 3.8   | 1.2 to 1.4   | 2.7 to 3.2   |

## 【Resin Mold】

If a large amount of resin is used for molding the chip, cracks may occur due to contraction stress during curing. To avoid such cracks, use a low shrinkage resin. The insulation resistance of the chip will degrade due to moisture absorption. Use a low moisture absorption resin. Check carefully that the resin does not generate a decomposition gas or reaction gas during the curing process or during normal storage. Such gases may crack the chip capacitor or damage the device itself.

## 【Soldering Profile for SMT Process with SnPb Solder Paste】

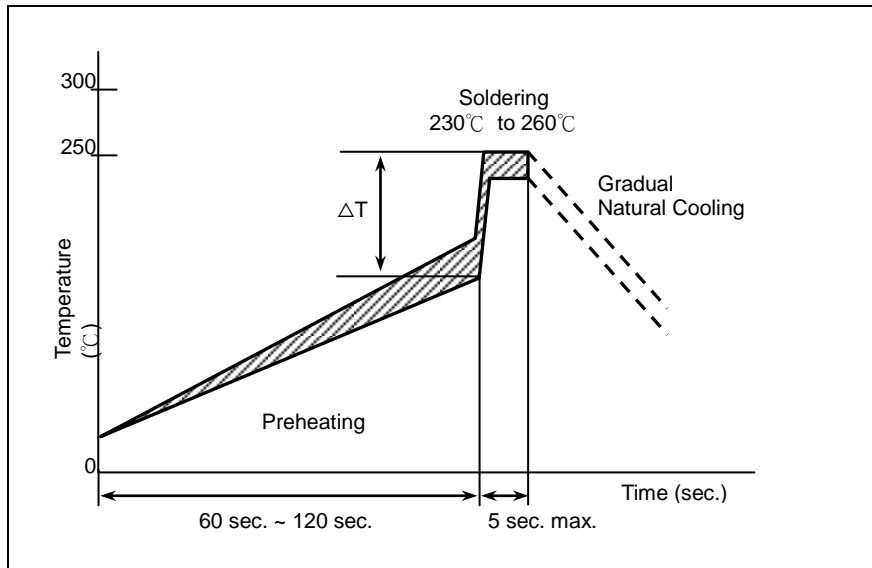
### Reflow Soldering



The difference between solder and chip surface should be controlled as following table. The rate of preheat should not exceed 4°C/sec and a target of 2°C/sec is preferred.

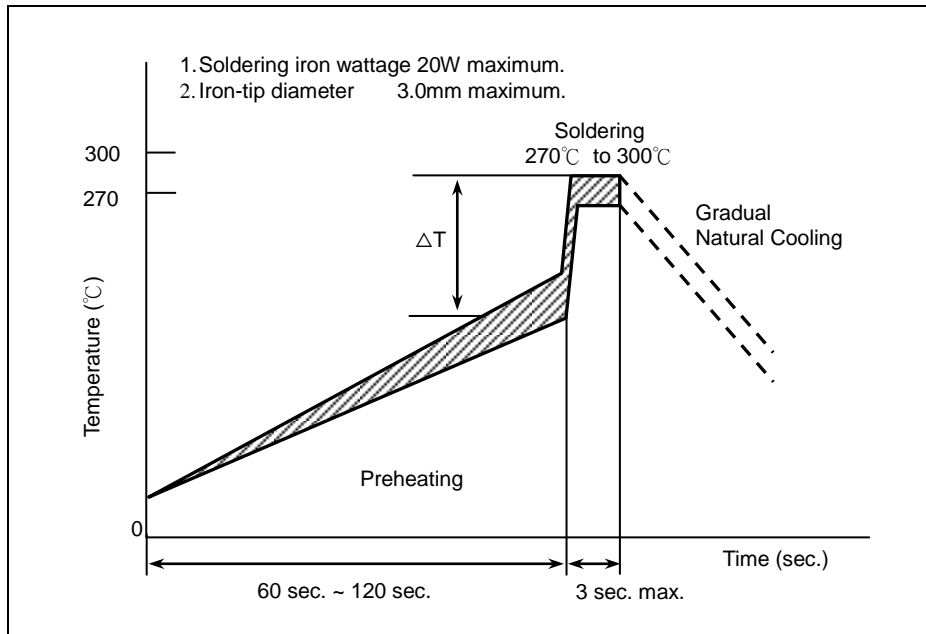
| Chip Size  | 3216 and smaller                    | 3225 and above                      |
|------------|-------------------------------------|-------------------------------------|
| Preheating | $\Delta T \leq 150^{\circ}\text{C}$ | $\Delta T \leq 130^{\circ}\text{C}$ |

**Wave Soldering**



| Chip Size  | 1608/2012/3216                    | 3225 and above |
|------------|-----------------------------------|----------------|
| Preheating | $\Delta T \leq 150^\circ\text{C}$ | -              |

**Soldering Iron**

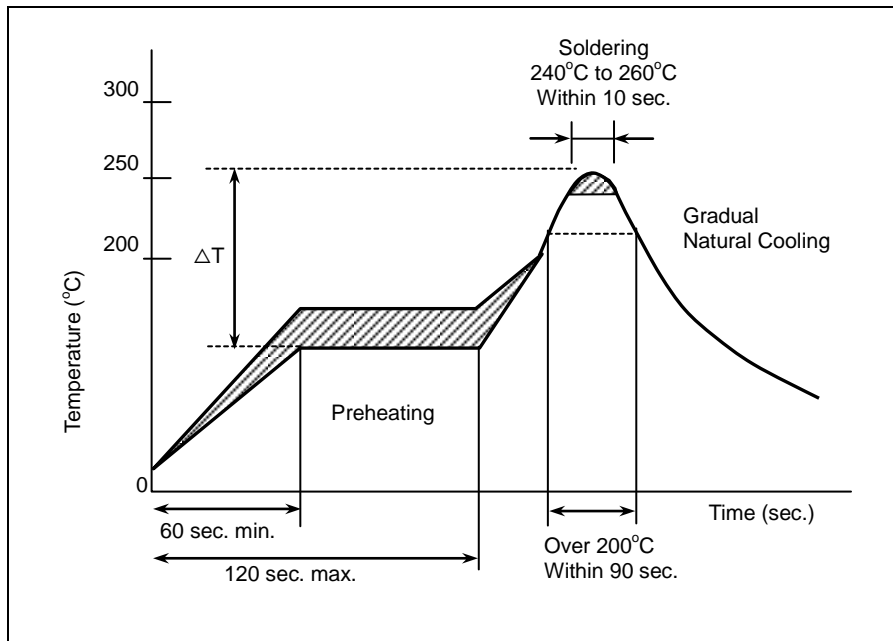


| Chip Size  | 3216 and smaller                  | 3225 and above                    |
|------------|-----------------------------------|-----------------------------------|
| Preheating | $\Delta T \leq 190^\circ\text{C}$ | $\Delta T \leq 130^\circ\text{C}$ |

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**[Soldering]**

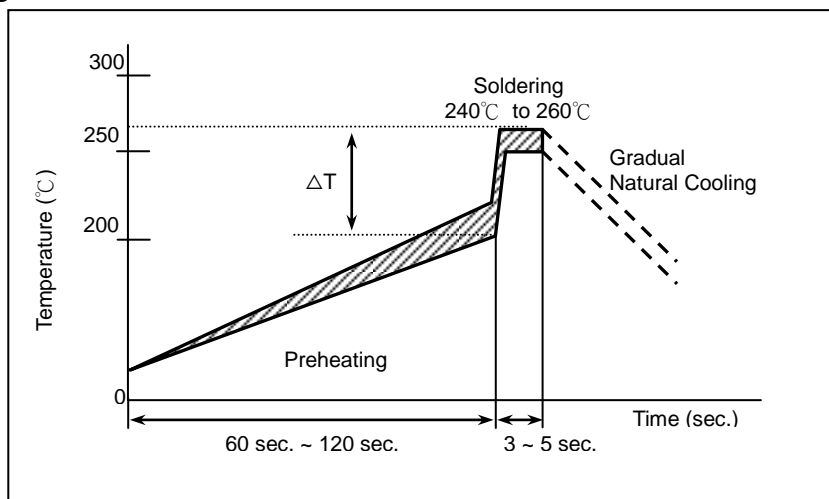
**Reflow Soldering for Lead free Termination**



The difference between solder and chip surface should be controlled as following table. The rate of preheat should not exceed 4°C/sec and a target of 2°C/sec is preferred.

| Chip Size  | 3216 and smaller                  | 3225 and above                    |
|------------|-----------------------------------|-----------------------------------|
| Preheating | $\Delta T \leq 150^\circ\text{C}$ | $\Delta T \leq 130^\circ\text{C}$ |

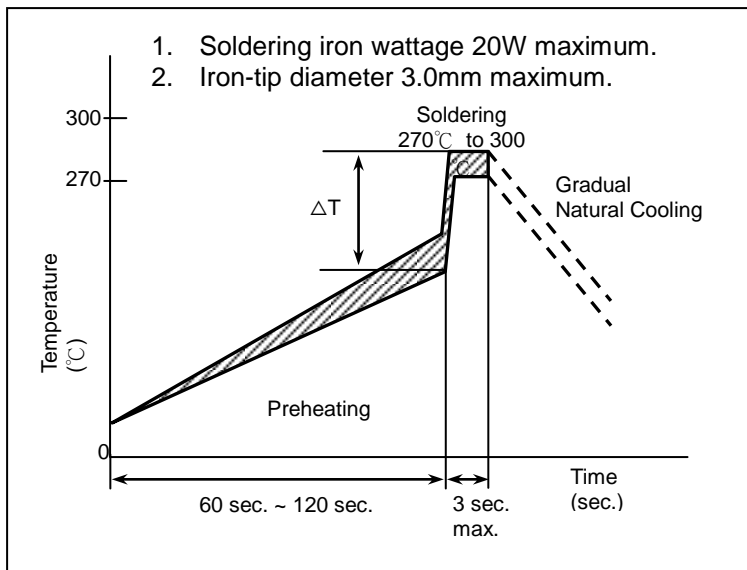
**Flow Soldering for Lead free Termination**



| Chip Size  | 1608/2012/3216                    | 3225 and above |
|------------|-----------------------------------|----------------|
| Preheating | $\Delta T \leq 150^\circ\text{C}$ | -              |



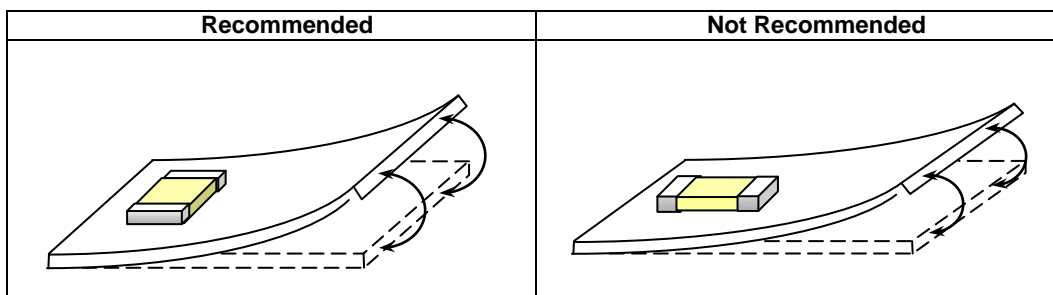
**Soldering Iron**



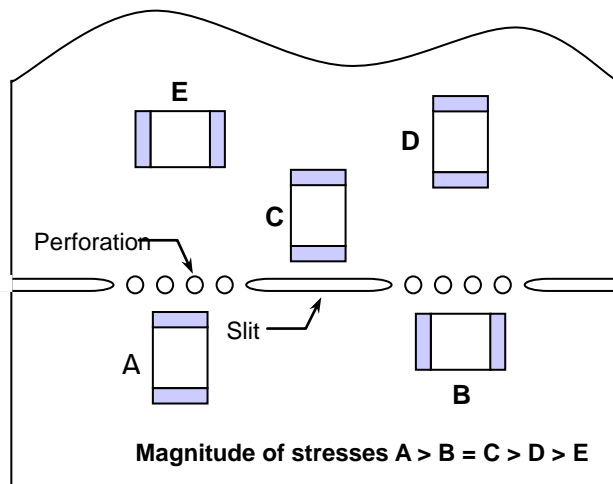
| Chip Size  | 3216 and smaller                    | 3225 and above                      |
|------------|-------------------------------------|-------------------------------------|
| Preheating | $\Delta T \leq 190^{\circ}\text{C}$ | $\Delta T \leq 130^{\circ}\text{C}$ |

**【Chip Layout and Breaking PCB】**

- To layout the SMD capacitors for reducing bend stress from board deflection of PCB. The following are examples of Hood and bad layout.

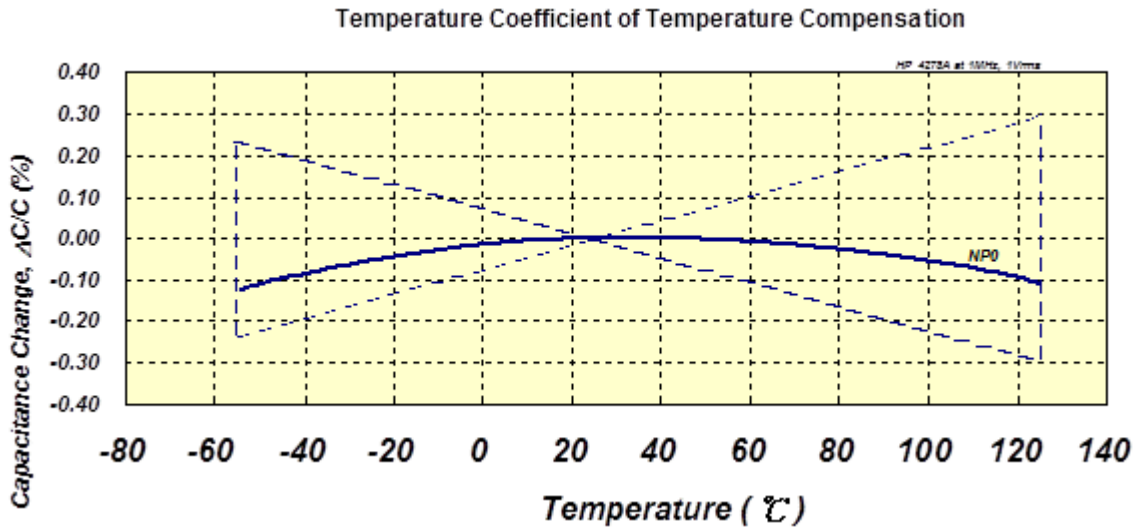


- When breaking PCB, the layout should be noted that the mechanical stresses are depending on the position of capacitors. The following example shows recommendation for better design.

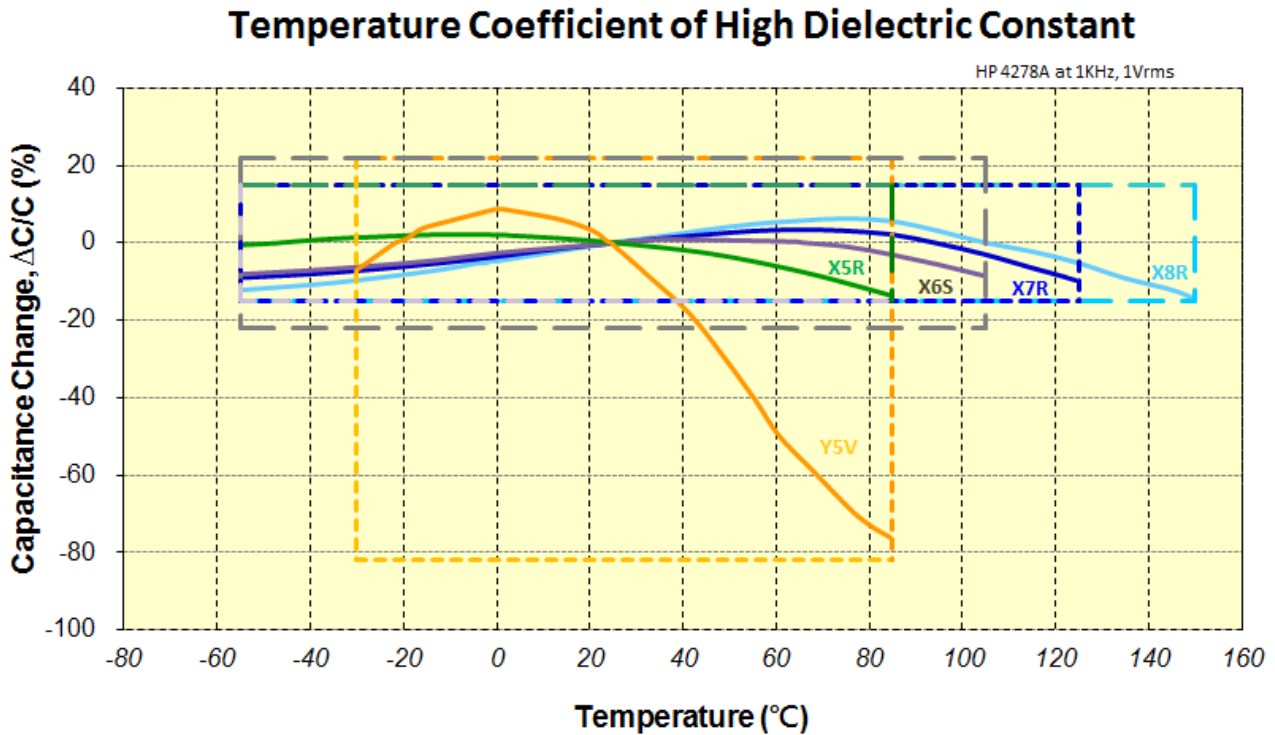


## 【Temperature Coefficient】

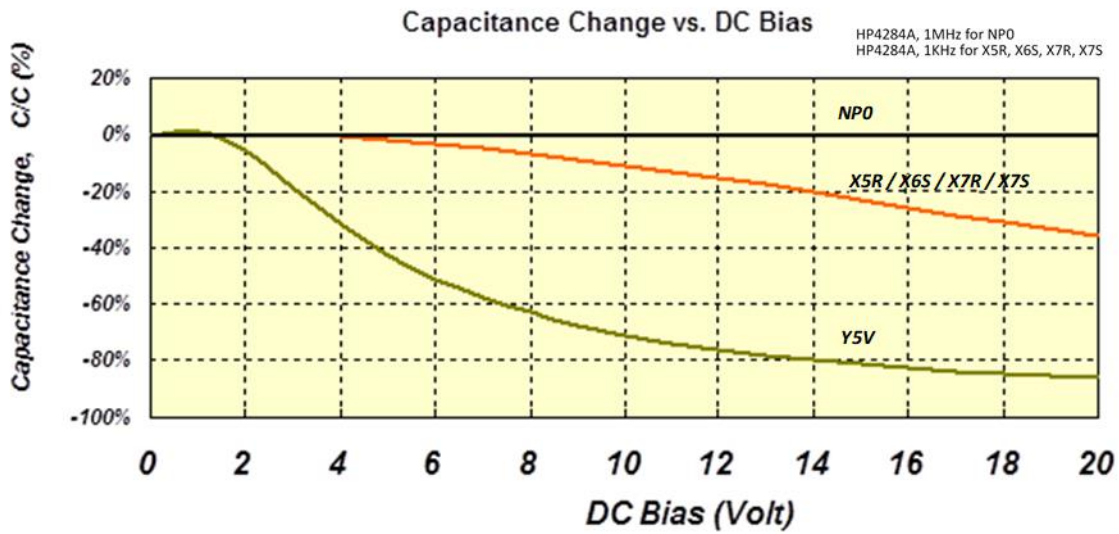
- Class 1 (Temperature Compensation series)



- Class 2 (High Dielectric Constant Series)

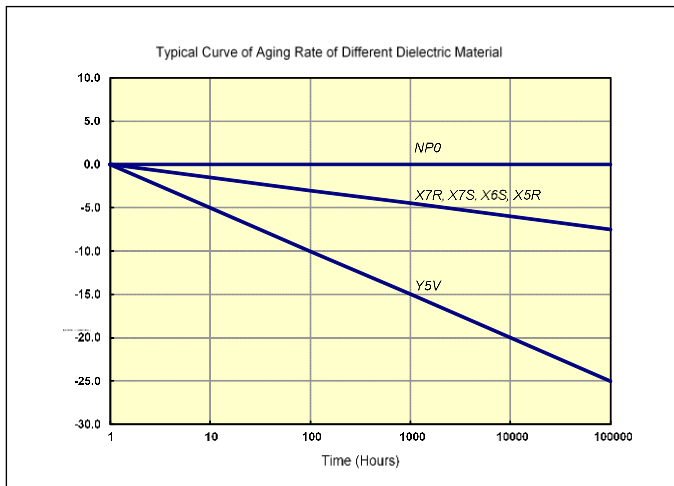


**[DC Voltage Coefficient]**



**[Aging Rate]**

The capacitance and dissipation factor of class 2 capacitors decreases with time. It is known as 'aging' that follows a logarithmic law and expressed in terms of an aging constant. Aging is caused by a gradual re-alignment of the crystalline structure of the ceramic. The aging constant is defined as the percentage loss of capacitance at a 'time decade'. The law of capacitance aging is expressed as following equation:



$$C_{t2} = C_{t1} \times (1 - k \times \log_{10}(t_2/t_1))$$

$C_{t1}$ : Capacitance after  $t_1$  hours of start aging.

$C_{t2}$ : Capacitance after  $t_2$  hours of start aging.

$k$ : aging constant (capacitance decrease per decade)

$t_1, t_2$ : time in hours from start of aging.

A typical curve of aging rate is shown in following figure.

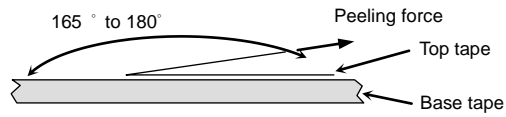
When heating the capacitors above Curie temperature (130°C~150°C) the capacitance can be re-new. So capacitance of class 2 capacitors will be complete de-aged by soldering process; subsequently a new aging process begins.

Because of aging, it is specified an age for measurement to meet the prescribed tolerance for class 2 capacitors. Normally, 1000 hours ( $t_2=1000$  hrs) is defined.

**【Peeling Off Force】**

Peeling off force: 0.1N to 1.0 N\* in the direction shown as below.

The peeling speed: 300±10 mm/min



1. The taped tape on reel is wound clockwise. The sprocket holes are to the right as the tape is pulled toward the user.
2. There are minimum 150 mm as the leader and minimum 40 mm empty tape as the tail is attached to the end of the tape.