Metallized Polypropylene Film Capacitor

Type: ECQUA [Class X2]

In accordance with UL/CSA and European safety regulation class X2

■Features

- ●Compact
- ●Flame-retardant plastic case and non-combustible resin
- ●RoHS directive compliant

■Recommended Applications

- ●Interference suppressors

■Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12
E	C	Q	U	A	A	F					

Product code: E C
Dielectric & construction: Q U A
Rated voltage: A F
Capacitance: 8 9 10
Cap. Tol.: 11
Suffix: 12

K	±10%
M	±20%

Blank	Straight
A	Cut lead

■Applicable Standard

UL	UL 60384-14	Across-The-Line Capacitors Antenna-Coupling and Line-By-Pass Components	(0.10 μF to 2.2 μF)	Accredited by UL
CSA	CAN/CSA E60384-14	Across-the-line capacitors Antenna-isolation and line-by-pass capacitors	(0.10 μF to 2.2 μF)	
Europe	EN 60384-14	Class X2	(0.10 μF to 2.2 μF)	Accredited by VDE
International	IEC 60384-14	Class X2	(0.10 μF to 2.2 μF)	

＊When applying this capacitor to European and American safety standards, please use type designation and rating such as ECQUA, 0.1μF.

＊Approval number (File No.) of safety regulations are subject to revision without notice. Ask factory for a copy of the latest file No

■Specifications

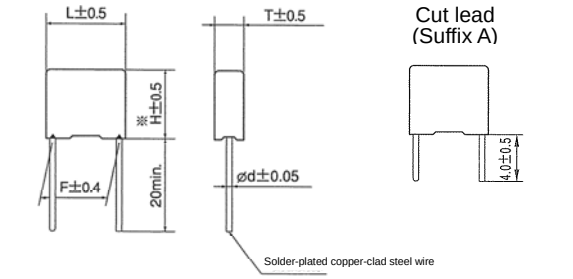
Category temp. range	−40 ℃ to +110 ℃
Rated voltage	275 VAC (Safety standard approval)
Capacitance range	0.10 to 2.2μF
Capacitance tolerance	±10 % (K), ±20 % (M)
Dissipation factor (tan δ)	C≦1.0μF : tan δ ≦0.1 % (20 ℃, 1 kHz) C＞1.0μF : tan δ ≦0.2 % (20 ℃, 1 kHz)
Withstand voltage	Between terminals: 633 VAC, 1183VDC 60s Between terminals to enclosure: 2050 VAC 60 s
Insulation resistance (IR)	C≦0.33μF : IR≧15000 MΩ (20 ℃, 100 VDC, 60 s) C＞0.33μF : IR≧5000 MΩ・μF (20 ℃, 100 VDC, 60 s) C≦0.47μF :IR≧2000 MΩ (20 ℃, 500 VDC, 60 s)
Maximum AC voltage ＊	310 VAC

＊Use of this capacitor is limited to AC voltage (50Hz or 60Hz sine wave).

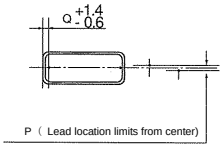
＊Suitable for series to the mains usage - for more details, please contact your Panasonic contact person.
(no influence of corona discharge at rated voltage)

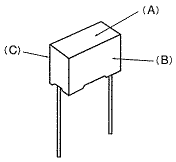
＊Maximum AC voltage including line voltage fluctuation is 310V AC.
310VAC is not nominal continuous applied voltage, but only indicates maximum value including fluctuation in the voltage of the power supply. Basic nominal voltage is considered as 240V AC.
This maximum AC voltage is specified in only ECQUA type, not specified in other types.
Please refer to individual product specification, and contact us for further questions regarding design life.

■**Dimensions in mm (not to scale)**

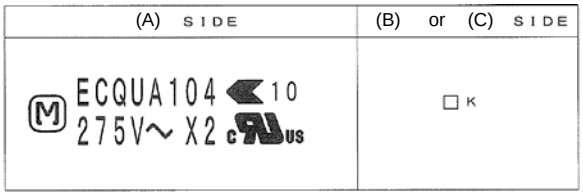


Cut lead
(Suffix A)





Marking Example



Note : only ± 10 % as cap. tol. be marked as "K". Note ☐ Data Code.

■**Rating & Dimensions**

●**Capacitance tolerance : ±10 % (K), ±20 % (M)**

Part No.	Capacitance (μF)	Dimension (mm)							Min. order Q'ty	
		L	T	H	F	φd	P	Q	Straight	Cut lead
ECQUAAF104☐( )	0.10	17.5	5.0	12.0	15.0	0.60	0±0.8	1.3	1000	1000
ECQUAAF154☐( )	0.15	17.5	6.0	13.0	15.0	0.60	0±0.8	1.3		
ECQUAAF224☐( )	0.22	17.5	7.5	14.0	15.0	0.60	0±0.8	1.3		
ECQUAAF334☐( )	0.33	17.5	9.0	16.0	15.0	0.60	0±0.8	1.3		800
ECQUAAF474☐( )	0.47	26.0	8.5	15.0	22.5	0.80	0±0.8	1.8	600	
ECQUAAF684☐( )	0.68	26.0	10.0	17.0	22.5	0.80	0±0.8	1.8	500	500
ECQUAAF105☐( )	1.0	26.0	12.0	19.0	22.5	0.80	0±0.8	1.8	300	300
ECQUAAF155☐( )	1.5	31.0	12.0	22.0	27.5	0.80	0±0.8	1.8	200	200
ECQUAAF225☐( )	2.2	31.0	14.5	24.5	27.5	0.80	0±0.8	1.8		

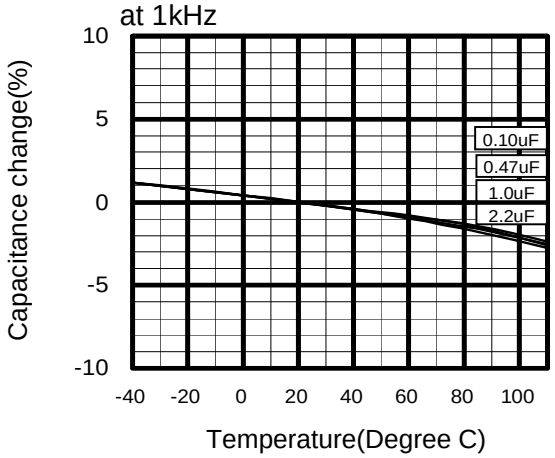
Cap. tol. code

Panasonic

ECQUA Type AC275V series (Metallized Polypropylene Film)

Electrical Characteristics <Typical Data >

Temperature Characteristics



Frequency Characteristics