



SPECIFICATION FOR APPROVAL

CUSTOMER: _____
CUSTOMER P/N: _____
ATC P/N: DLDU0810-SERIES
QUANTITY: 0 PCS
DATE: 2021.02.09

Please confirm your acceptance of this approval sheet by return fax.

APPROVED

REJECTED



DRAWN BY	CHECKED BY	APPROVED BY
林月霞 <i>Alice</i>	張德名 <i>Richard</i>	葉任銘 <i>J.M.Yeh</i>

Acroparts Technology Co., Ltd.

1F No.16 Tze Chiang St. Yangmei, Taoyuan, Taiwan

TEL: +886-3-4881133 FAX: +886-3-4881177



SPECIFICATION

ATC's DWG NUMBER

DLDU0810-SERIES

PROD. NAME

RADIAL LEADED FIXED INDUCTOR

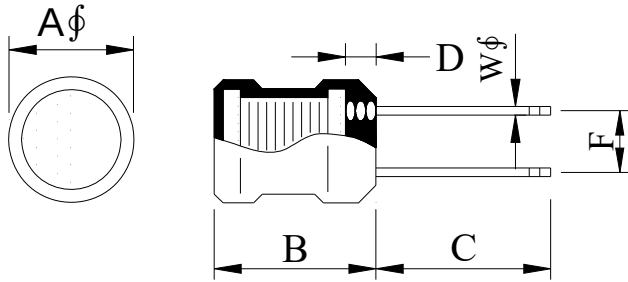
REV.

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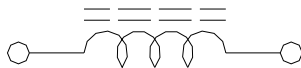
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1 Configuration and Dimensions :



Item	Spec. (mm)
A	10.0 max.
B	13.0 max.
C	15.0 typ.
D	3.00 typ.
F	5.00 ± 1.00
W	0.65 ± 0.10

2 Schematic Diagram :



3 Rating :

Operating Temperature: -40°C ~ +125°C

Storage Temperature: Under 40°C, Humidity < 75%

4 Material List :

- a. Core: Ferrite DR core
- b. Wire: Enamelled copper wire
- c. Lead: Sn / Ag / Cu
- d. Tube: Shrinkable tube



SPECIFICATION		ATC's DWG NUMBER	DLDU0810-SERIES		
PROD. NAME	RADIAL LEADED FIXED INDUCTOR	REV.	B	PAGE	2

5 Electrical Characteristics :

DWG No.	L (uH)	Q min.	Freq.(Hz)		SRF (MHz)typ.	RDC (Ω)max.	IDC (mA)max.	Tol.
			L	Q				
DLDU0810-3R3□Z	3.300	30	1K	7.96M	65.00	0.012	5000	M
DLDU0810-3R9□Z	3.900	30	1K	7.96M	55.00	0.014	4600	K
DLDU0810-4R7□Z	4.700	30	1K	7.96M	45.00	0.016	4300	K
DLDU0810-5R6□Z	5.600	30	1K	7.96M	38.00	0.020	3900	K
DLDU0810-6R8□Z	6.800	30	1K	7.96M	27.00	0.022	3700	K
DLDU0810-8R2□Z	8.200	30	1K	7.96M	21.00	0.024	3500	K
DLDU0810-100□Z	10.00	50	1K	2.52M	17.00	0.025	3200	K
DLDU0810-120□Z	12.00	50	1K	2.52M	15.00	0.027	3000	K
DLDU0810-150□Z	15.00	50	1K	2.52M	13.00	0.033	2800	K
DLDU0810-180□Z	18.00	50	1K	2.52M	12.00	0.039	2600	K
DLDU0810-220□Z	22.00	50	1K	2.52M	11.00	0.047	2400	K
DLDU0810-270□Z	27.00	50	1K	2.52M	10.00	0.052	2100	K
DLDU0810-330□Z	33.00	50	1K	2.52M	8.500	0.075	1900	K
DLDU0810-390□Z	39.00	40	1K	2.52M	7.700	0.082	1700	K
DLDU0810-470□Z	47.00	40	1K	2.52M	6.700	0.100	1500	K
DLDU0810-560□Z	56.00	40	1K	2.52M	6.400	0.150	1300	K
DLDU0810-680□Z	68.00	30	1K	2.52M	5.800	0.180	1200	K
DLDU0810-820□Z	82.00	30	1K	2.52M	5.200	0.200	1100	K
DLDU0810-101□Z	100.0	30	1K	796K	4.400	0.200	900.0	K
DLDU0810-121□Z	120.0	30	1K	796K	4.200	0.220	800.0	K
DLDU0810-151□Z	150.0	30	1K	796K	3.700	0.240	720.0	K
DLDU0810-181□Z	180.0	30	1K	796K	3.500	0.280	650.0	K
DLDU0810-221□Z	220.0	20	1K	796K	3.300	0.350	600.0	K
DLDU0810-271□Z	270.0	20	1K	796K	2.900	0.400	550.0	K
DLDU0810-331□Z	330.0	20	1K	796K	2.600	0.470	500.0	K
DLDU0810-391□Z	390.0	20	1K	796K	2.400	0.680	460.0	K
DLDU0810-471□Z	470.0	20	1K	796K	2.200	0.800	420.0	K
DLDU0810-561□Z	560.0	20	1K	796K	2.000	1.000	380.0	K
DLDU0810-681□Z	680.0	20	1K	796K	1.800	1.200	350.0	K
DLDU0810-821□Z	820.0	20	1K	796K	1.700	1.500	310.0	K

Note:

- -Tolerance: K=±10% / M=±20%
- IDC obtained when temp. rise to 20°C or the initial inductance drop by 10% , whichever is smaller.



SPECIFICATION		ATC's DWG NUMBER	DLDU0810-SERIES		
PROD. NAME	RADIAL LEADED FIXED INDUCTOR	REV.	B	PAGE	3

5 Electrical Characteristics :

DWG No.	L (uH)	Q min.	Freq.(Hz)		SRF (MHz)min.	RDC (Ω)max.	IDC (mA)max.	Tol.
			L	Q				
DLDU0810-102□Z	1000	40	1K	252K	1.500	1.800	280.0	K
DLDU0810-122□Z	1200	40	1K	252K	1.400	2.000	250.0	K
DLDU0810-152□Z	1500	40	1K	252K	1.300	2.400	230.0	K
DLDU0810-182□Z	1800	40	1K	252K	1.100	2.800	210.0	K
DLDU0810-222□Z	2200	40	1K	252K	1.000	3.300	190.0	K
DLDU0810-272□Z	2700	40	1K	252K	0.880	5.000	170.0	K
DLDU0810-332□Z	3300	40	1K	252K	0.780	5.600	150.0	K
DLDU0810-392□Z	3900	40	1K	252K	0.720	6.200	140.0	K
DLDU0810-472□Z	4700	40	1K	252K	0.650	7.000	130.0	K
DLDU0810-562□Z	5600	40	1K	252K	0.580	9.100	120.0	K
DLDU0810-682□Z	6800	40	1K	252K	0.550	10.00	110.0	K
DLDU0810-822□Z	8200	20	1K	252K	0.500	15.00	100.0	K
DLDU0810-103□Z	10000	20	1K	79.6K	0.420	24.00	90.00	K
DLDU0810-473□Z	47000	20	1K	79.6K	0.200	80.00	40.00	K
DLDU0810-104□Z	100000	20	1K	79.6K	0.140	180.0	28.00	K

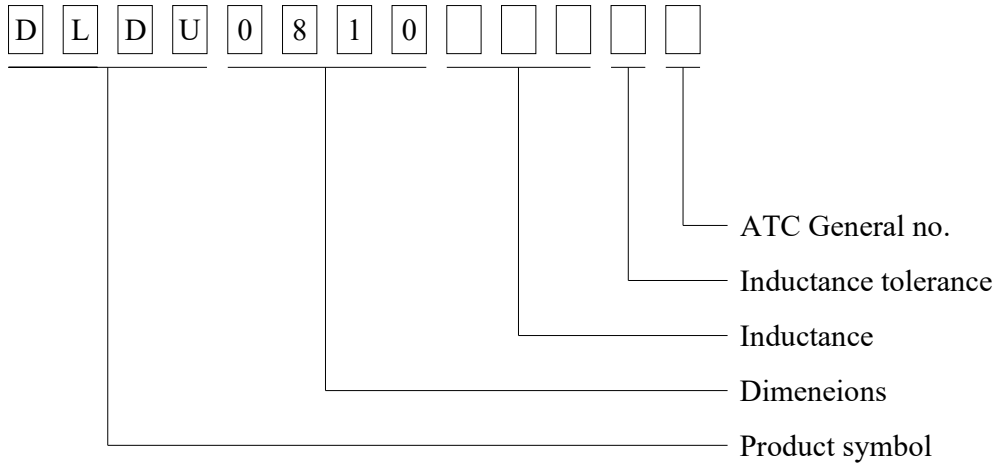
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PROD. NAME	RADIAL LEADED FIXED INDUCTOR	REV.	B	PAGE	4

6 DWG Expression :



7 Reliability test :

1-1.Electrical characteristic tests

No	Item	Specification	Test Method
1	Electronic characteristic test of major products	Refer to catalogue of specific products	Refer to catalogue of specific products
2	Overload test	1.During the test no smoke no peculiar, smell, no fire 2.The characteristic is normal after test	Apply twice as rated current for 5 minutes
3	Voltage resistance test	1.During the test no breakdown 2.The characteristic is normal after test	Refer to product's specification



SPECIFICATION		ATC's DWG NUMBER	DLDU0810-SERIES		
PROD. NAME	RADIAL LEADED FIXED INDUCTOR	REV.	B	PAGE	5

7 Reliability Test :

1-2.Physical characteristic tests

No	Item	Specification	Test Method
1	Heat endurance of flow soldering	1.No case deformation or change in appearance 2. $\Delta L/L \leq 10\%$ 3. $\Delta Q/Q \leq 30\%$	1.Dip pads in flux then dip in solder pot at $260 \pm 5^\circ\text{C}$ for 10 seconds 2.Solder: Sn(96)/Ag(4) 3.Flux: rosin flux
2	Vibration test	4. $\Delta RDC/RDC \leq 10\%$	Apply frequency 10~55Hz, 0.75mm amplitude in each of perpendicular direction for 2 hours (total 6 hours)
3	Drop test		Packaged & drop down from 1m with $981\text{m/s}^2(100\text{G})$ attitude in 1 angle 1 ridges & 2 surfaces orientations
4	Terminal strength		A.Pull Force: 0.45kg, the force shall be applied gradually to the terminal and then maintained for 10 seconds C.Wire-lead bend: 0.23kg, the rate of bending shall be approximately 3 seconds per bend in each direction The load shall be suspended at a point within 1/4 inch from the free end of the terminal
5	Solderability test	Terminals area must have 95% min. solder coverage	1.Dip pads in flux then dip in solder pot at $245 \pm 5^\circ\text{C}$ for 5 seconds 2.Solder: Sn(96)/Ag(4) 3.Flux: rosin flux
6	Resistance to solvent test	No case deformation or change in appearance, or obliteration of marking	To dip parts into IPA solvent for $5 \pm 0.5\text{Min.}$ then drying them at room temp for 5Min. at last, to brushing making 10 times

1-3.Environmental tests

No	Item	Specification	Test Method
1	High temperature storage test	1.No case deformation or change in appearance 2. $\Delta L/L \leq 10\%$ 3. $\Delta Q/Q \leq 30\%$	Temperature: $85 \pm 2^\circ\text{C}$ Time: 96 ± 2 hours Tested not less than 1 hour, nor more than 2 hours at room temperature
2	Low temperature storage test	4. $\Delta RDC/RDC \leq 10\%$	Temperature: $-25 \pm 2^\circ\text{C}$ Time: 96 ± 2 hours Tested not less than 1 hour, nor more than 2 hours at room temperature
3	Humidity test		1. Dry oven at a temperature of $40 \pm 5^\circ\text{C}$ for 24 hours 2. Measurements at the end of this period 3. Exposure temperature: $40 \pm 2^\circ\text{C}$ 4. Humidity: $93 \pm 3\% \text{RH}$, Time: 96 ± 2 hours 5. Tested while the specimens are still in the chamber 6. Tested not less than 1 hour, nor more than 2 hours at room temperature
4	Thermal shock test		First -40°C for T time, last 125°C T time as 1 cycle, go through 20 cycles