



SPECIFICATION FOR APPROVAL

CUSTOMER P/N :

ATC P/N : DLDU0608-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> |

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SPECIFICATION

ATC's DWG
NUMBER

DLDU0608-SERIES

PROD.
NAME

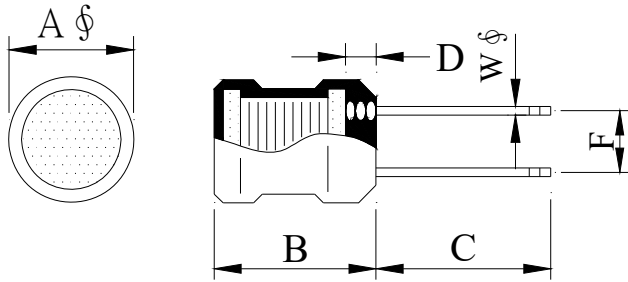
RADIAL LEADED FIXED INDUCTOR

REV.

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1 Configuration and Dimensions :



| Item | Spec. (mm) |
|------|-------------|
| A | 7.50 max. |
| B | 11.0 max. |
| C | 15.0 typ. |
| D | 3.00 typ. |
| F | 2.50 ± 0.50 |
| W | 0.65 ± 0.05 |

2 Schematic Diagram :



3 Rating :

Operating Temperature : -25°C ~ +85°C

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

4 Material List :

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



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5 Electrical Characteristics :

| DWG No. | L (uH) | Q min. | Freq.(Hz) | | RDC (Ω)max. | IDC (mA)max. | Tol. |
|----------------|-----------|-----------|-----------|-------|----------------|-----------------|------|
| | | | L | Q | | | |
| DLDU0608-3R3□Z | 3.300 | 20 | 1K | 7.96M | 0.016 | 3500 | K |
| DLDU0608-4R7□Z | 4.700 | 20 | 1K | 7.96M | 0.020 | 3000 | K |
| DLDU0608-6R8□Z | 6.800 | 20 | 1K | 7.96M | 0.022 | 2500 | K |
| DLDU0608-100□Z | 10.00 | 30 | 1K | 2.52M | 0.039 | 2000 | K |
| DLDU0608-150□Z | 15.00 | 30 | 1K | 2.52M | 0.045 | 1700 | K |
| DLDU0608-220□Z | 22.00 | 30 | 1K | 2.52M | 0.062 | 1400 | K |
| DLDU0608-330□Z | 33.00 | 30 | 1K | 2.52M | 0.100 | 1100 | K |
| DLDU0608-470□Z | 47.00 | 30 | 1K | 2.52M | 0.150 | 950.0 | K |
| DLDU0608-680□Z | 68.00 | 30 | 1K | 2.52M | 0.220 | 800.0 | K |
| DLDU0608-101□Z | 100.0 | 20 | 1K | 796K | 0.350 | 650.0 | K |
| DLDU0608-151□Z | 150.0 | 20 | 1K | 796K | 0.430 | 540.0 | K |
| DLDU0608-221□Z | 220.0 | 20 | 1K | 796K | 0.900 | 440.0 | K |
| DLDU0608-331□Z | 330.0 | 20 | 1K | 796K | 1.500 | 360.0 | K |
| DLDU0608-471□Z | 470.0 | 20 | 1K | 796K | 1.800 | 300.0 | K |
| DLDU0608-681□Z | 680.0 | 20 | 1K | 796K | 2.500 | 250.0 | K |
| DLDU0608-102□Z | 1000.0 | 100 | 1K | 252K | 3.200 | 200.0 | K |
| DLDU0608-122□Z | 1200.0 | 70 | 1K | 252K | 3.500 | 180.0 | K |
| DLDU0608-152□Z | 1500.0 | 70 | 1K | 252K | 4.500 | 170.0 | K |
| DLDU0608-182□Z | 1800.0 | 70 | 1K | 252K | 5.000 | 155.0 | K |
| DLDU0608-222□Z | 2200.0 | 70 | 1K | 252K | 6.800 | 140.0 | K |
| DLDU0608-272□Z | 2700.0 | 70 | 1K | 252K | 7.200 | 125.0 | K |
| DLDU0608-332□Z | 3300.0 | 70 | 1K | 252K | 10.50 | 115.0 | K |
| DLDU0608-392□Z | 3900.0 | 70 | 1K | 252K | 11.70 | 105.0 | K |
| DLDU0608-472□Z | 4700.0 | 70 | 1K | 252K | 13.60 | 95.00 | K |
| DLDU0608-502□Z | 5000.0 | 70 | 1K | 252K | 14.60 | 90.00 | K |
| DLDU0608-562□Z | 5600.0 | 70 | 1K | 252K | 16.60 | 85.00 | K |
| DLDU0608-682□Z | 6800.0 | 70 | 1K | 252K | 19.60 | 80.00 | K |
| DLDU0608-822□Z | 8200.0 | 70 | 1K | 252K | 25.20 | 70.00 | K |
| DLDU0608-103□Z | 10000 | 70 | 1K | 79.6K | 29.50 | 65.00 | K |
| DLDU0608-123□Z | 12000 | 50 | 1K | 79.6K | 33.80 | 60.00 | K |

Note :

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



| | | | | | |
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5 Electrical Characteristics :

| DWG No. | L (uH) | Q min. | Freq.(Hz) | | RDC (Ω)max. | IDC (mA)max. | Tol. |
|----------------|-----------|-----------|-----------|-------|----------------|-----------------|------|
| | | | L | Q | | | |
| DLDU0608-153□Z | 15000 | 50 | 1K | 79.6K | 45.40 | 55.00 | K |
| DLDU0608-183□Z | 18000 | 50 | 1K | 79.6K | 50.40 | 50.00 | K |
| DLDU0608-223□Z | 22000 | 50 | 1K | 79.6K | 80.00 | 45.00 | K |
| DLDU0608-303□Z | 30000 | 50 | 1K | 79.6K | 91.50 | 40.00 | K |
| DLDU0608-333□Z | 33000 | 50 | 1K | 79.6K | 98.50 | 35.00 | K |
| DLDU0608-393□Z | 39000 | 50 | 1K | 79.6K | 140.0 | 32.00 | K |
| DLDU0608-473□Z | 47000 | 50 | 1K | 79.6K | 160.0 | 30.00 | K |
| DLDU0608-503□Z | 50000 | 50 | 1K | 79.6K | 170.0 | 29.00 | K |
| DLDU0608-563□Z | 56000 | 50 | 1K | 79.6K | 250.0 | 28.00 | K |
| DLDU0608-683□Z | 68000 | 50 | 1K | 79.6K | 282.0 | 25.00 | K |
| DLDU0608-823□Z | 82000 | 50 | 1K | 79.6K | 312.0 | 23.00 | K |
| DLDU0608-104□Z | 100000 | 30 | 1K | 25.2K | 380.0 | 20.00 | K |
| DLDU0608-124□Z | 120000 | 30 | 1K | 25.2K | 430.0 | 18.00 | K |
| DLDU0608-154□Z | 150000 | 30 | 1K | 25.2K | 520.0 | 16.00 | K |

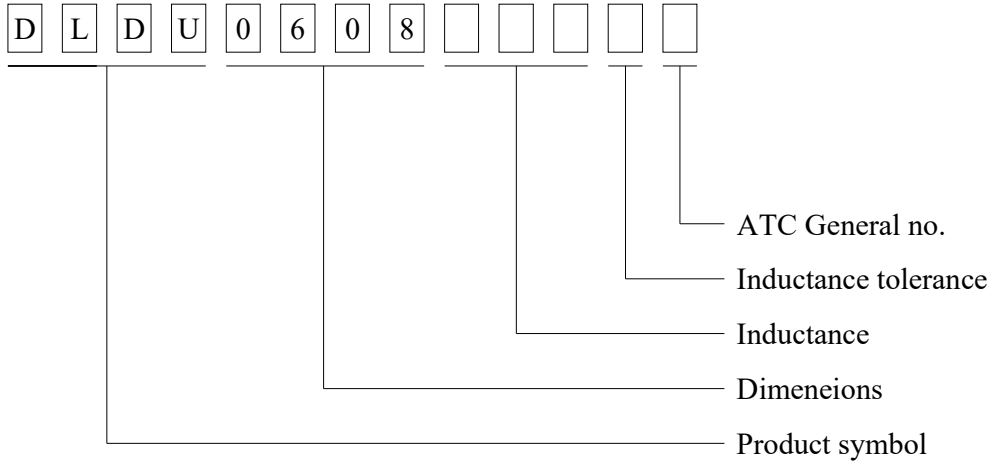
Note :

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



| | | | | | |
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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 |



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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 981m/s ² (100G) 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 ± 0.5 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 : $93 \pm 3\%$ 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 |