



Features

- Available in E12 series
- Inductance range: 1.0 μ H to 47 mH
- RoHS compliant*

Applications

- Power supplies
- DC/DC converters
- General use

RLB9012 Radial Inductor

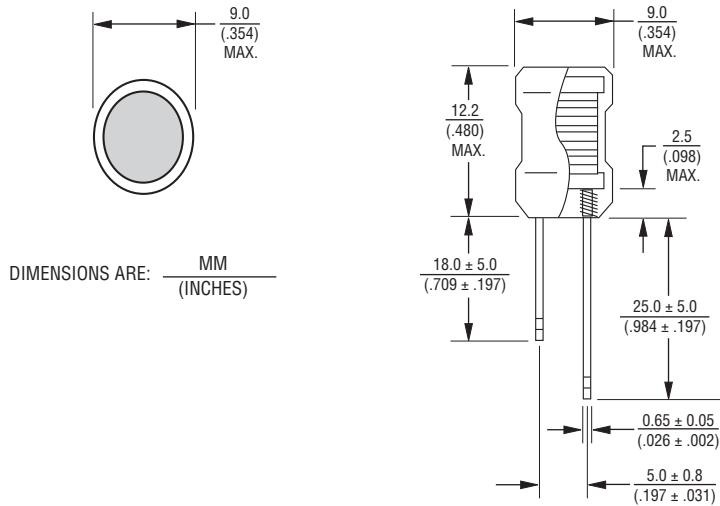
General Specifications

| | |
|---|-------------------|
| Inductance Drop at Rated Current (IDC)..... | 5 % |
| Operating Temperature | -55 °C to +125 °C |
| Storage Temperature | -55 °C to +105 °C |

Materials

| | |
|--------------------|-------------------------------|
| Core Material..... | Ferrite DR core |
| Wire..... | Enameled copper wire |
| Terminal | Cu/AG/Sn |
| Tube | Shrinkable tube 125 °C, 600 V |

Product Dimensions

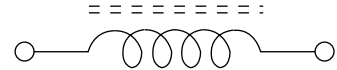


Additional Information

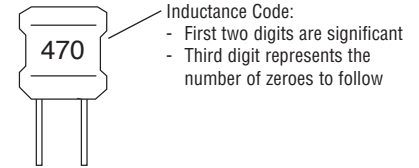
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Electrical Schematic



Typical Part Marking



Electrical Characteristics

| BOURNS Part No. | Inductance (μ H) @ 1 kHz | Q ref. | Q Test freq. (MHz) | SRF (MHz) min. | RDC (ohms) max. | IDC (A) max. |
|-----------------|-------------------------------|--------|--------------------|----------------|-----------------|--------------|
| RLB9012-1R0ML | 1.0 ± 20 % | 20 | 7.96 | 150.00 | 0.013 | 10.0 |
| RLB9012-1R5ML | 1.5 ± 20 % | 20 | 7.96 | 100.00 | 0.016 | 8.50 |
| RLB9012-2R2ML | 2.2 ± 20 % | 20 | 7.96 | 90.00 | 0.021 | 6.50 |
| RLB9012-3R3ML | 3.3 ± 20 % | 20 | 7.96 | 65.00 | 0.025 | 5.50 |
| RLB9012-4R7ML | 4.7 ± 20 % | 20 | 7.96 | 51.00 | 0.030 | 4.60 |
| RLB9012-6R8ML | 6.8 ± 20 % | 20 | 7.96 | 29.00 | 0.035 | 4.10 |
| RLB9012-100KL | 10.0 ± 10 % | 50 | 2.52 | 14.00 | 0.045 | 3.40 |
| RLB9012-120KL | 12.0 ± 10 % | 50 | 2.52 | 13.00 | 0.050 | 3.10 |
| RLB9012-150KL | 15.0 ± 10 % | 50 | 2.52 | 12.00 | 0.056 | 2.90 |
| RLB9012-180KL | 18.0 ± 10 % | 40 | 2.52 | 11.00 | 0.061 | 2.66 |
| RLB9012-220KL | 22.0 ± 10 % | 40 | 2.52 | 9.20 | 0.070 | 2.40 |
| RLB9012-270KL | 27.0 ± 10 % | 40 | 2.52 | 8.50 | 0.080 | 2.22 |
| RLB9012-330KL | 33.0 ± 10 % | 30 | 2.52 | 7.80 | 0.090 | 2.05 |
| RLB9012-390KL | 39.0 ± 10 % | 30 | 2.52 | 6.90 | 0.100 | 1.85 |
| RLB9012-470KL | 47.0 ± 10 % | 30 | 2.52 | 6.50 | 0.160 | 1.77 |
| RLB9012-560KL | 56.0 ± 10 % | 30 | 2.52 | 5.40 | 0.180 | 1.48 |



WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document. <https://www.bourns.com/legal/disclaimer.pdf>

RLB9012 Radial Inductor

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Electrical Characteristics (Continued)

| BOURNS Part No. | Inductance (μH) @ 1 kHz | Q ref. | Q Test freq. (MHz) | SRF (MHz) min. | RDC (ohms) max. | IDC (A) max. |
|-----------------|---|-----------|--------------------|-------------------|--------------------|-----------------|
| | | | Q | | | |
| RLB9012-680KL | 68.0 \pm 10 % | 30 | 2.52 | 4.90 | 0.210 | 1.36 |
| RLB9012-820KL | 82.0 \pm 10 % | 30 | 2.52 | 4.10 | 0.230 | 1.30 |
| RLB9012-101KL | 100.0 \pm 10 % | 20 | 0.796 | 3.70 | 0.280 | 1.40 |
| RLB9012-121KL | 120.0 \pm 10 % | 20 | 0.796 | 3.40 | 0.320 | 1.25 |
| RLB9012-151KL | 150.0 \pm 10 % | 20 | 0.796 | 3.20 | 0.370 | 1.15 |
| RLB9012-181KL | 180.0 \pm 10 % | 20 | 0.796 | 2.80 | 0.580 | 1.08 |
| RLB9012-221KL | 220.0 \pm 10 % | 20 | 0.796 | 2.70 | 0.650 | 1.00 |
| RLB9012-271KL | 270.0 \pm 10 % | 20 | 0.796 | 2.40 | 0.750 | 0.90 |
| RLB9012-331KL | 330.0 \pm 10 % | 20 | 0.796 | 2.30 | 0.850 | 0.78 |
| RLB9012-391KL | 390.0 \pm 10 % | 20 | 0.796 | 2.10 | 1.000 | 0.74 |
| RLB9012-471KL | 470.0 \pm 10 % | 20 | 0.796 | 1.90 | 1.100 | 0.68 |
| RLB9012-561KL | 560.0 \pm 10 % | 20 | 0.796 | 1.80 | 1.400 | 0.64 |
| RLB9012-681KL | 680.0 \pm 10 % | 20 | 0.796 | 1.60 | 1.600 | 0.59 |
| RLB9012-821KL | 820.0 \pm 10 % | 20 | 0.796 | 1.50 | 1.800 | 0.56 |
| RLB9012-102KL | 1000.0 \pm 10 % | 20 | 0.252 | 1.30 | 2.900 | 0.51 |
| RLB9012-122KL | 1200.0 \pm 10 % | 15 | 0.252 | 1.20 | 3.400 | 0.48 |
| RLB9012-152KL | 1500.0 \pm 10 % | 15 | 0.252 | 1.10 | 3.800 | 0.43 |
| RLB9012-182KL | 1800.0 \pm 10 % | 15 | 0.252 | 1.00 | 5.300 | 0.39 |
| RLB9012-222KL | 2200.0 \pm 10 % | 15 | 0.252 | 0.80 | 5.900 | 0.36 |
| RLB9012-272KL | 2700.0 \pm 10 % | 15 | 0.252 | 0.70 | 8.200 | 0.32 |
| RLB9012-332KL | 3300.0 \pm 10 % | 15 | 0.252 | 0.60 | 9.100 | 0.29 |
| RLB9012-392KL | 3900.0 \pm 10 % | 15 | 0.252 | 0.55 | 9.900 | 0.27 |
| RLB9012-472KL | 4700.0 \pm 10 % | 15 | 0.252 | 0.50 | 13.60 | 0.24 |
| RLB9012-562KL | 5600.0 \pm 10 % | 15 | 0.252 | 0.45 | 14.90 | 0.22 |
| RLB9012-682KL | 6800.0 \pm 10 % | 15 | 0.252 | 0.40 | 20.70 | 0.20 |
| RLB9012-822KL | 8200.0 \pm 10 % | 15 | 0.252 | 0.35 | 22.70 | 0.18 |
| RLB9012-103KL | 10,000 \pm 10 % | 15 | 0.079 | 0.32 | 25.10 | 0.17 |
| RLB9012-123KL | 12,000 \pm 10 % | 15 | 0.079 | 0.28 | 34.70 | 0.15 |
| RLB9012-153KL | 15,000 \pm 10 % | 15 | 0.079 | 0.25 | 48.90 | 0.14 |
| RLB9012-183KL | 18,000 \pm 10 % | 15 | 0.079 | 0.23 | 53.60 | 0.12 |
| RLB9012-223KL | 22,000 \pm 10 % | 15 | 0.079 | 0.21 | 59.30 | 0.11 |
| RLB9012-273KL | 27,000 \pm 10 % | 15 | 0.079 | 0.19 | 82.70 | 0.10 |
| RLB9012-333KL | 33,000 \pm 10 % | 15 | 0.079 | 0.17 | 91.50 | 0.09 |
| RLB9012-393KL | 39,000 \pm 10 % | 15 | 0.079 | 0.15 | 125.50 | 0.08 |
| RLB9012-473KL | 47,000 \pm 10 % | 15 | 0.079 | 0.12 | 137.80 | 0.08 |

Packaging: 200 pieces per tray

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REV. 07/21

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