



**THE DATASHEET OF
SRN2009T-1R0M**





Features

- Semi-shielded construction
- Inductance range: 0.33 to 10 μ H
- Rated current up to 2.1 A
- Low profile: 0.95 mm max.
- RoHS compliant* and halogen free**

Applications

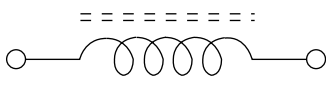
- DC/DC converters
- Power supplies
- Wearable devices
- HDDs, SSDs
- Smartphones
- LCD displays

SRN2009T Series - Semi-shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part No. | Inductance @ 1 MHz / 0.1 V | | Q (Typ.) @ 1 MHz | SRF (MHz) Typ. | DCR (Ω) ± 20 % | I _{rms} (A) Typ. | I _{sat} (A) Typ. |
|-----------------|----------------------------|----------|------------------|----------------|-----------------------------|---------------------------|---------------------------|
| | L (μ H) | Tol. % | | | | | |
| SRN2009T-R33M | 0.33 | ± 20 | 30 | 400 | 0.028 | 2.1 | 2.1 |
| SRN2009T-R47M | 0.47 | ± 20 | 25 | 300 | 0.038 | 2 | 2 |
| SRN2009T-R68M | 0.68 | ± 20 | 22 | 250 | 0.055 | 1.5 | 1.5 |
| SRN2009T-1R0M | 1.0 | ± 20 | 20 | 200 | 0.065 | 1.4 | 1.4 |
| SRN2009T-1R5M | 1.5 | ± 20 | 18 | 170 | 0.11 | 1.2 | 1.2 |
| SRN2009T-2R2M | 2.2 | ± 20 | 16 | 150 | 0.16 | 0.9 | 0.9 |
| SRN2009T-3R3M | 3.3 | ± 20 | 15 | 120 | 0.25 | 0.85 | 0.85 |
| SRN2009T-4R7M | 4.7 | ± 20 | 15 | 90 | 0.4 | 0.75 | 0.75 |
| SRN2009T-6R8M | 6.8 | ± 20 | 15 | 80 | 0.55 | 0.65 | 0.65 |
| SRN2009T-100M | 10 | ± 20 | 15 | 60 | 1 | 0.55 | 0.6 |

Electrical Schematic

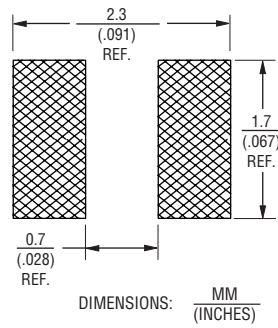


How to Order

SRN2009T - R68M

Model _____
 Value Code (see table) _____

Recommended Layout



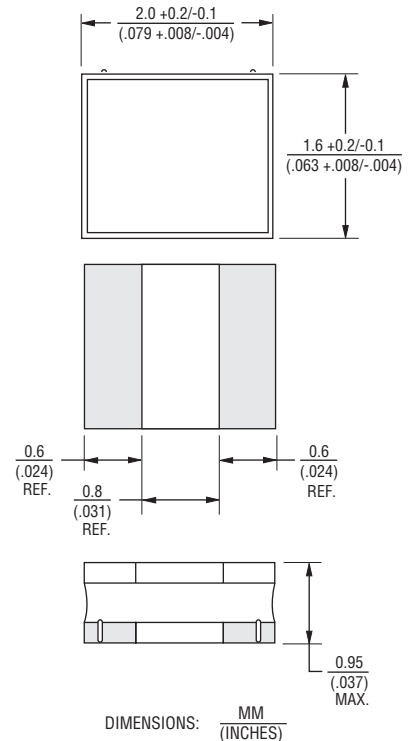
General Specifications

Operating Temperature -40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature (Component) -40 °C to +125 °C
 Temperature Rise 40 °C at rated I_{rms}
 Rated Current Inductance drops 30 % at I_{sat}
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

Materials

Core Ferrite
 Wire Enameled copper
 Terminal Finish Sn
 Coating Magnetic epoxy resin
 Packaging 2000 pcs. per 7-inch reel

Product Dimensions



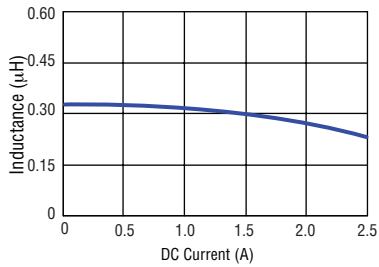
* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 **Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
 Specifications are subject to change without notice.
 Users should verify actual device performance in their specific applications.
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SRN2009T Series - Semi-shielded Power Inductors

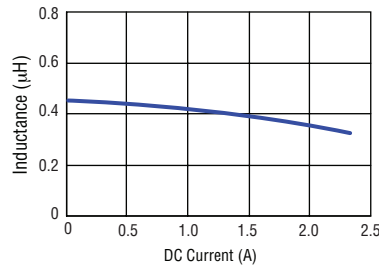
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Inductance vs. Current

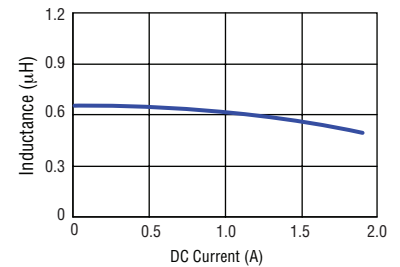
SRN2009T-R33M



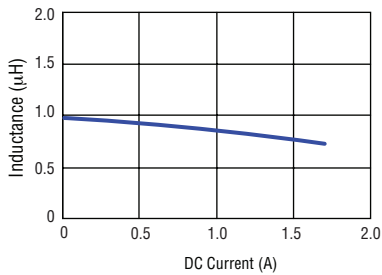
SRN2009T-R47M



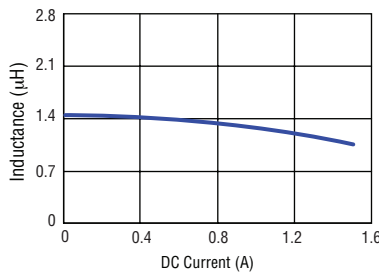
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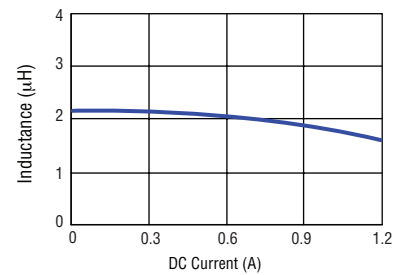
SRN2009T-1R0M



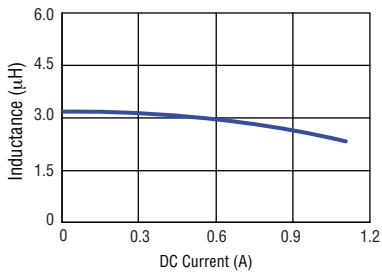
SRN2009T-1R5M



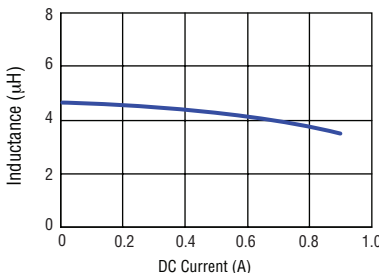
SRN2009T-2R2M



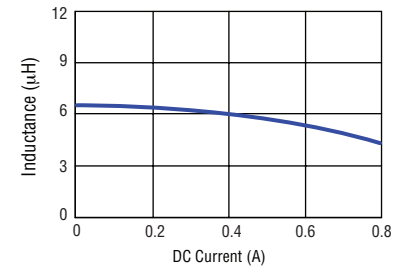
SRN2009T-3R3M



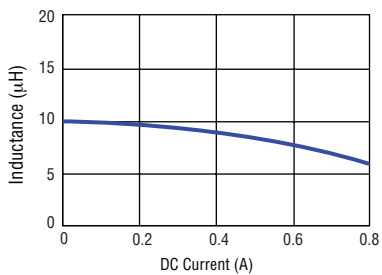
SRN2009T-4R7M



SRN2009T-6R8M



SRN2009T-100M

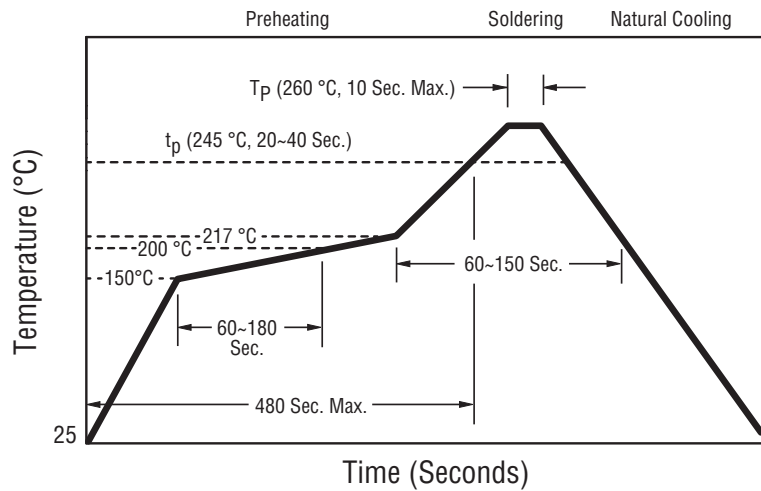


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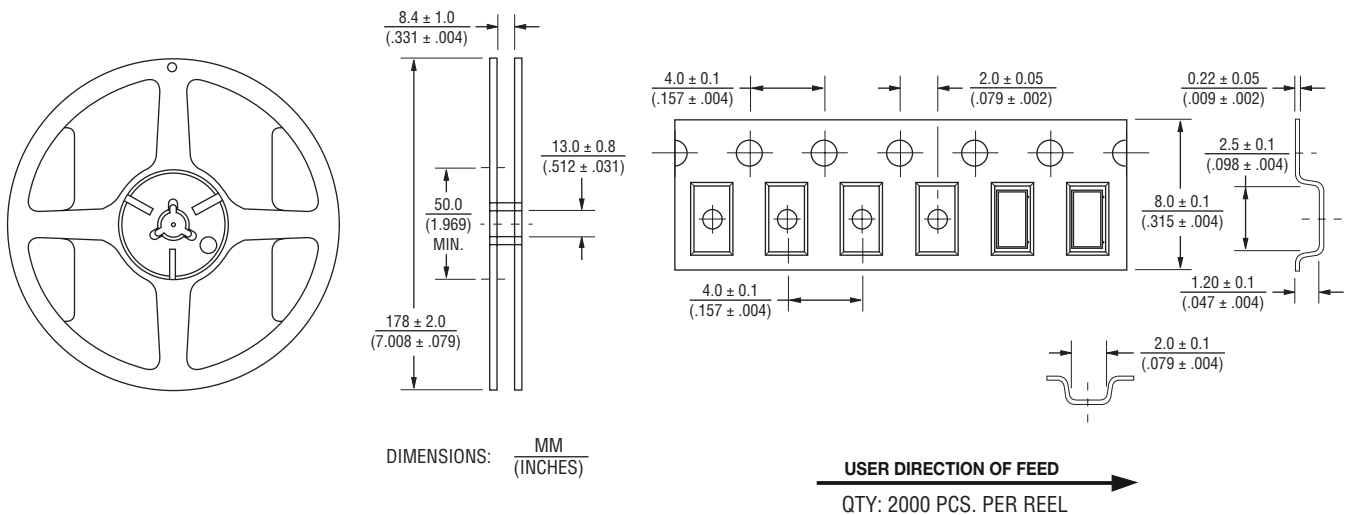
SRN2009T Series - Semi-shielded Power Inductors

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Soldering Profile



Packaging Specifications



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