

Features

- Semi-shielded construction
- Inductance range: 0.47 to 22 μ H
- Rated current up to 3.2 A
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

This series is currently available but not recommended for new designs. Contact Bourns for alternative product information.

SRN4012TA Series - Semi-shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part No. | Inductance @ 100 kHz / 1 V | | Q (Min.) @ 100 kHz | SRF (MHz) Typ. | DCR (Ω) ± 20 % | I _{rms} (A) | I _{sat} (A) |
|-----------------|----------------------------|----------|--------------------|----------------|-----------------------------|----------------------|----------------------|
| | L (μ H) | Tol. % | | | | | |
| SRN4012TA-R47M | 0.47 | ± 20 | 6 | 140 | 0.025 | 3.2 | 4 |
| SRN4012TA-1R0M | 1.0 | ± 20 | 6 | 100 | 0.042 | 2.2 | 2.8 |
| SRN4012TA-1R2M | 1.2 | ± 20 | 6 | 90 | 0.05 | 3.7 | 5.6 |
| SRN4012TA-1R5M | 1.5 | ± 20 | 6 | 90 | 0.05 | 2 | 2.2 |
| SRN4012TA-2R2M | 2.2 | ± 20 | 6 | 70 | 0.06 | 1.9 | 1.65 |
| SRN4012TA-3R3M | 3.3 | ± 20 | 6 | 60 | 0.07 | 1.7 | 1.4 |
| SRN4012TA-4R7M | 4.7 | ± 20 | 6 | 45 | 0.095 | 1.5 | 1.2 |
| SRN4012TA-5R6M | 5.6 | ± 20 | 6 | 40 | 0.12 | 1.4 | 1.1 |
| SRN4012TA-6R8M | 6.8 | ± 20 | 6 | 35 | 0.125 | 1.3 | 0.9 |
| SRN4012TA-100M | 10 | ± 20 | 10 | 30 | 0.18 | 1.1 | 0.8 |
| SRN4012TA-150M | 15 | ± 20 | 10 | 24 | 0.26 | 0.75 | 0.65 |
| SRN4012TA-220M | 22 | ± 20 | 10 | 18 | 0.4 | 0.62 | 0.5 |

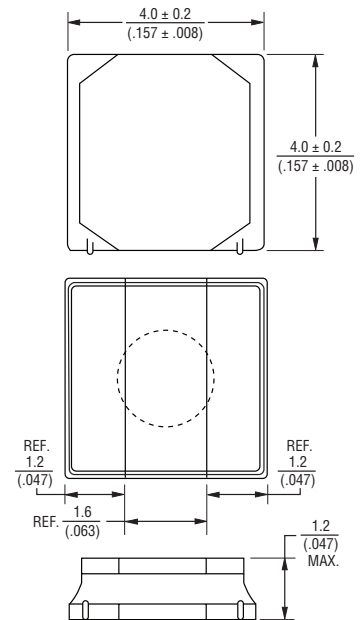
General Specifications

Operating Temperature -40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature .. -40 °C to +125 °C
 Temperature Rise 40 °C at rated I_{rms}
 Rated Current
 Inductance drops 30 % at I_{sat}
 Failure In Time (FIT) 24.7/10⁹ hours
 Mean Time Between Failures (MTBF)
 40.4 x 10⁶ hours

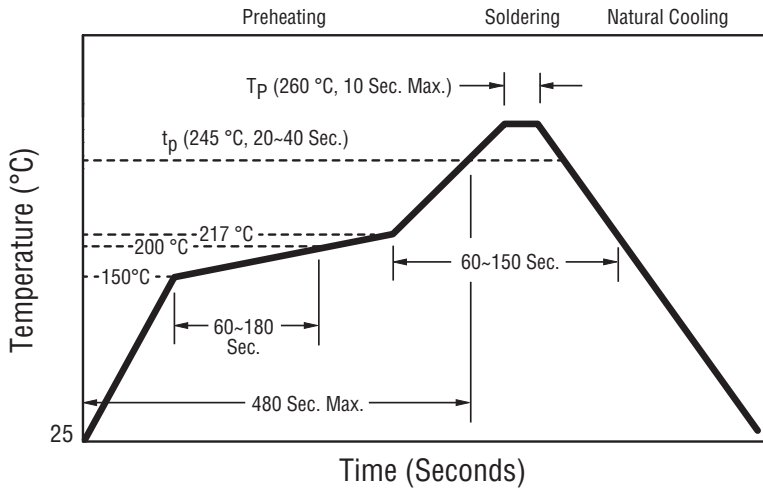
Materials

Core Ferrite
 Wire Enameled copper
 Terminal Finish Sn
 Coating Magnetic epoxy resin
 Packaging 4500 pcs. per 13-inch reel

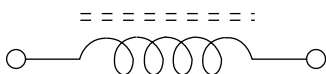
Product Dimensions



Soldering Profile



Electrical Schematic



How to Order

SRN4012TA - 100M

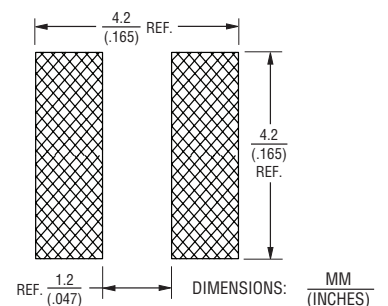
Model _____
 Value Code (see table) _____



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

* 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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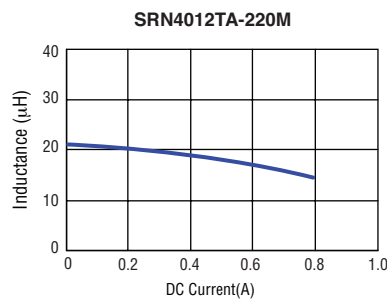
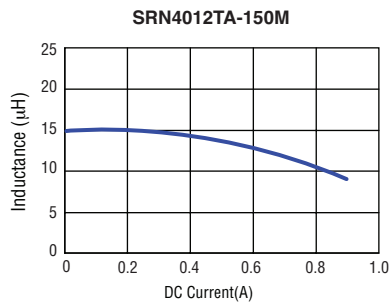
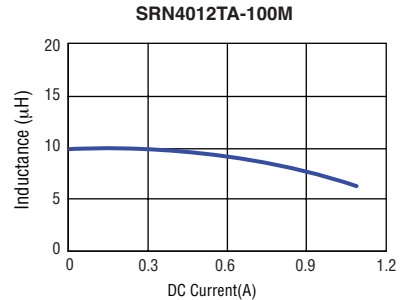
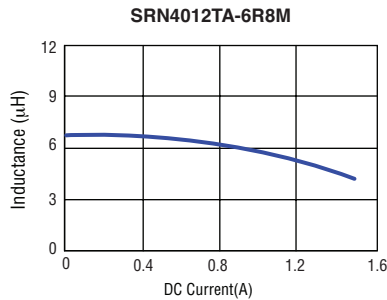
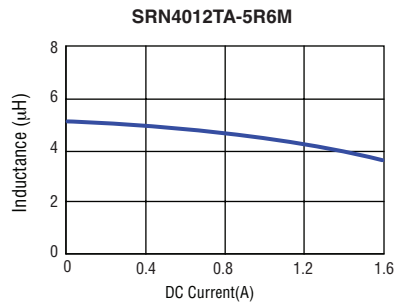
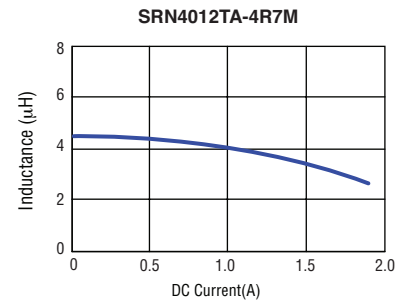
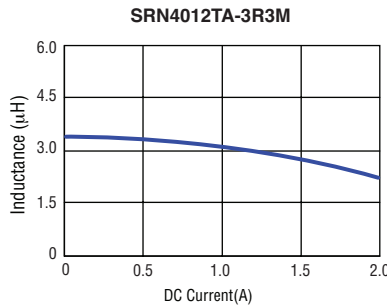
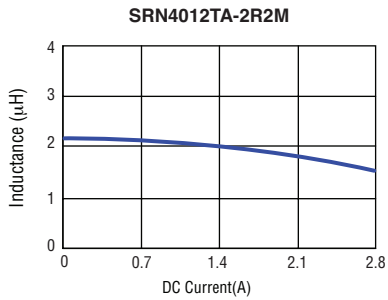
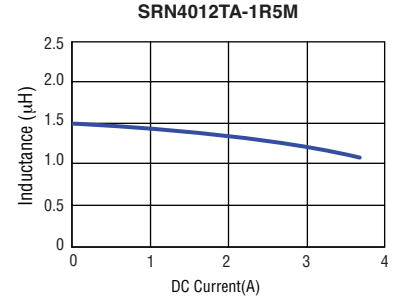
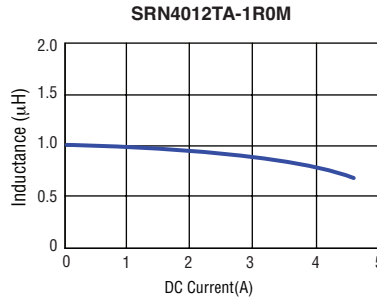
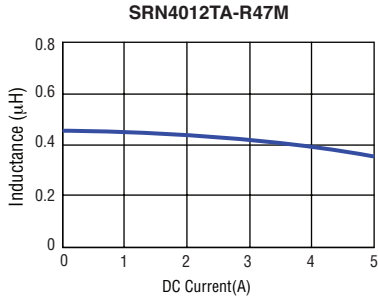
Recommended Layout



SRN4012TA Series - Semi-shielded Power Inductors



Inductance vs. Current



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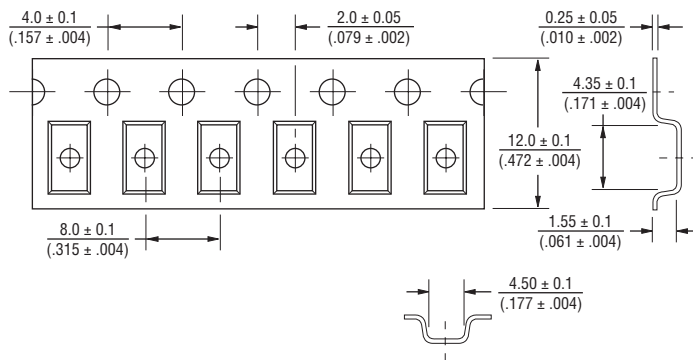
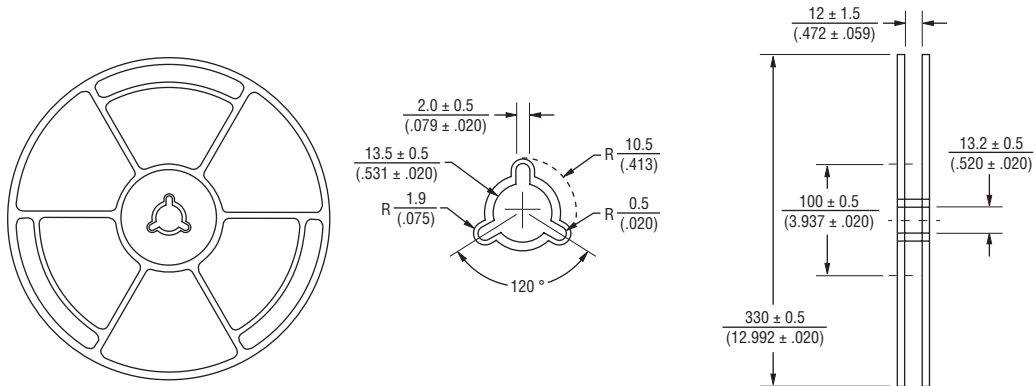
Users should verify actual device performance in their specific applications.

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SRN4012TA Series - Semi-shielded Power Inductors

BOURNS®

Packaging Specifications



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

USER DIRECTION OF FEED →

QTY: 4500 PCS. PER REEL

REV. 06/22

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