


## Features

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

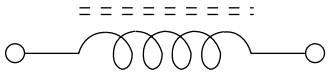
This series is currently available but not recommended for new designs. A possible alternative is the Model SRN4012BTA.

# SRN4012TA Series – Semi-shielded Power Inductors

## Electrical Specifications @ 25 °C

| Bourns Part No. | Inductance @ 100 kHz / 1 V L (µH) | Tol. % | Q (Min.) @ 100 kHz | SRF (MHz) Typ. | DCR (Ω) ±20 % | Irms (A) | Isat (A) |
|---|---|---|---|---|---|---|---|
| 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 |

## Electrical Schematic



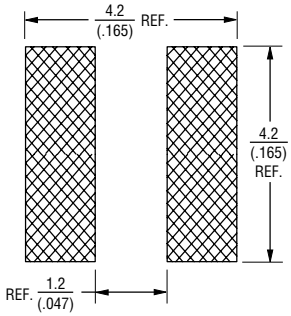
## How to Order

**SRN4012TA - 100M**

Model

Value Code (see table)

## Recommended Layout




## Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

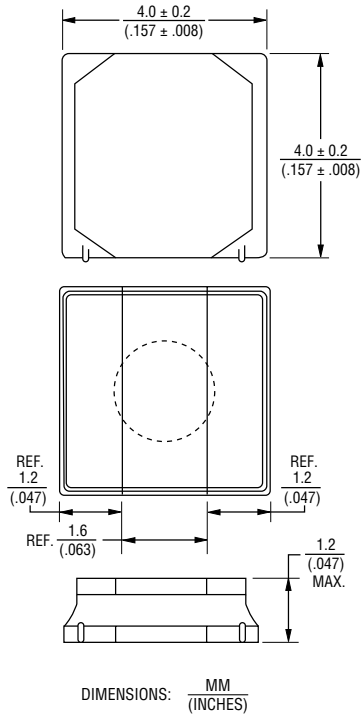
## General Specifications

Operating Temperature ..... -40 °C to +125 °C (Temperature rise included)
Storage Temperature ... -40 °C to +125 °C
Temperature Rise .....40 °C at rated Irms
Rated Current ..... Inductance drops 30 % at Isat
Failure In Time (FIT).....24.7/$10^9$ hours
Mean Time Between Failures (MTBF) .....40.4 x $10^6$ hours

## Materials

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

## Product Dimensions




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**Asia:** Tel: +886-2-2562-4117 • Email: asiacus@bourns.com
**EMEA:** Tel: +36 88 885 877 • Email: eurocus@bourns.com
**www.bourns.com**

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

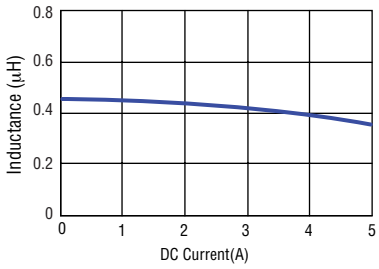
* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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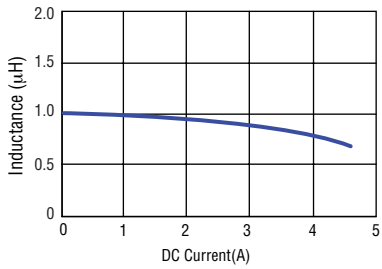
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## Inductance vs. Current

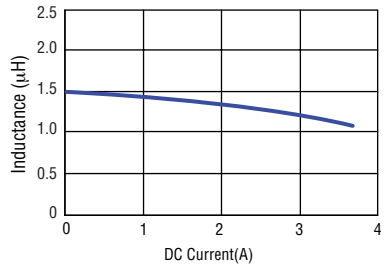
**SRN4012TA-R47M**



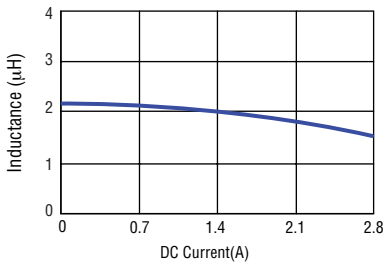

**SRN4012TA-1R0M**



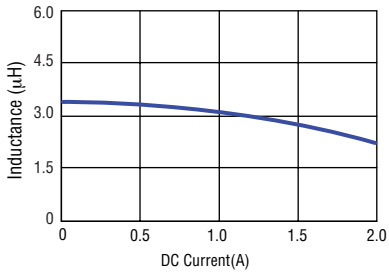

**SRN4012TA-1R5M**



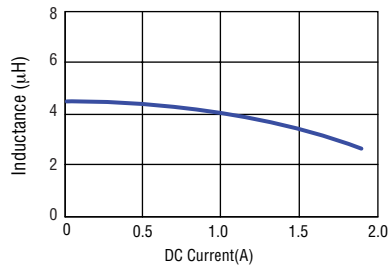

**SRN4012TA-2R2M**



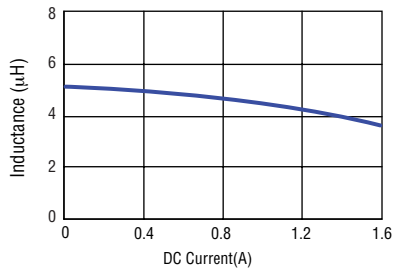

**SRN4012TA-3R3M**



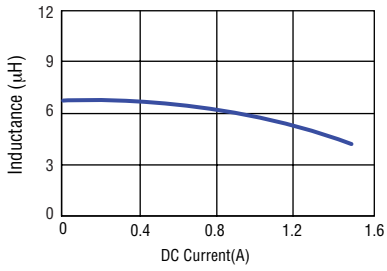

**SRN4012TA-4R7M**



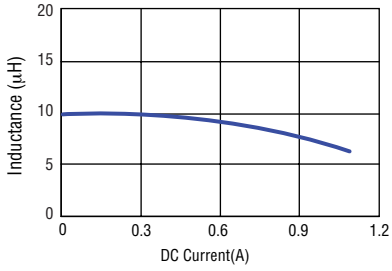

**SRN4012TA-5R6M**



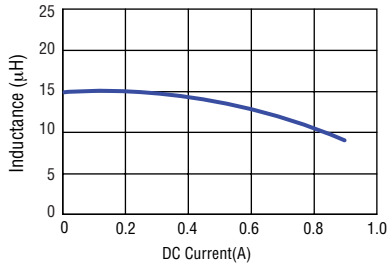

**SRN4012TA-6R8M**



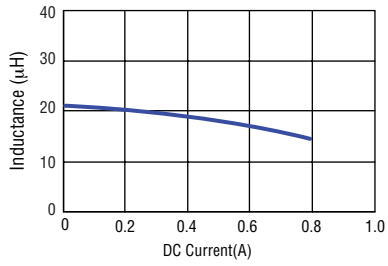

**SRN4012TA-100M**




**SRN4012TA-150M**



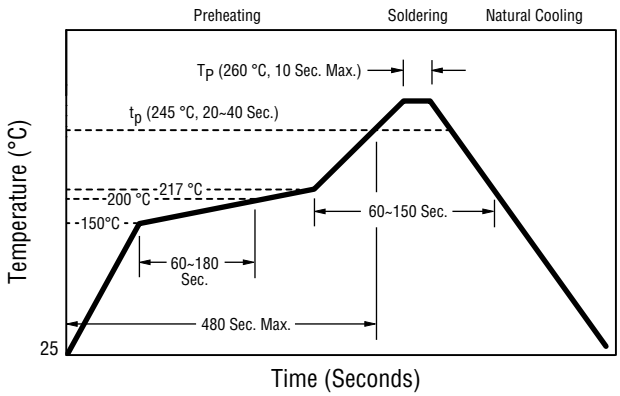

**SRN4012TA-220M**



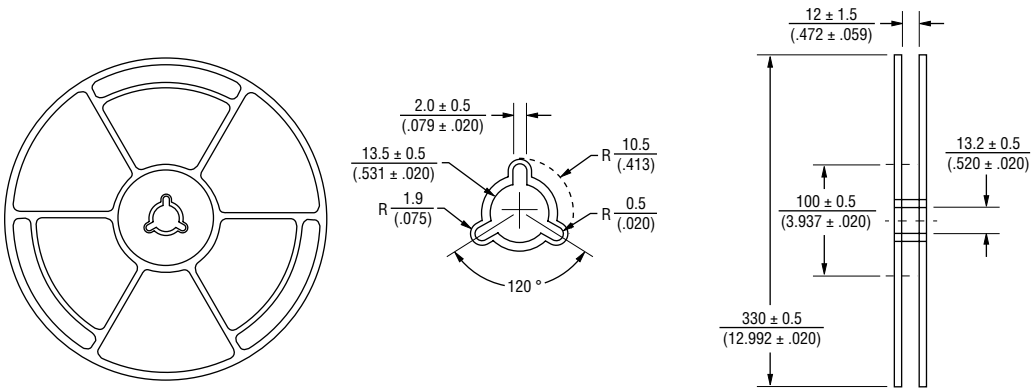

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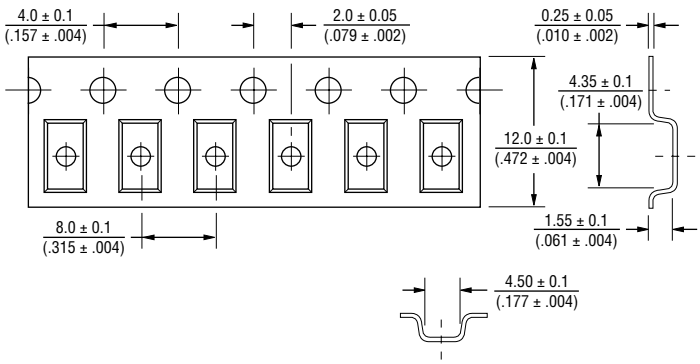
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## Soldering Profile




## Packaging Specifications




**USER DIRECTION OF FEED**

QTY: 4500 PCS. PER REEL

REV. 06/25

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