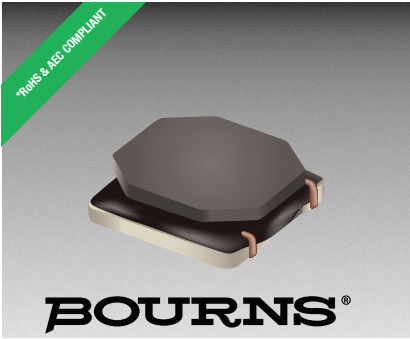





**THE DATASHEET OF  
SRN4012TA-100M**





### Features

- Semi-shielded construction
- Inductance range: 0.47 to 22  $\mu$ 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. 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		Q (Min.) @ 100 kHz	SRF (MHz) Typ.	DCR ( $\Omega$ ) $\pm 20$ %	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)
	L ( $\mu$ H)	Tol. %					
SRN4012TA-R47M	0.47	$\pm 20$	6	140	0.025	3.2	4
SRN4012TA-1R0M	1.0	$\pm 20$	6	100	0.042	2.2	2.8
SRN4012TA-1R2M	1.2	$\pm 20$	6	90	0.05	3.7	5.6
SRN4012TA-1R5M	1.5	$\pm 20$	6	90	0.05	2	2.2
SRN4012TA-2R2M	2.2	$\pm 20$	6	70	0.06	1.9	1.65
SRN4012TA-3R3M	3.3	$\pm 20$	6	60	0.07	1.7	1.4
SRN4012TA-4R7M	4.7	$\pm 20$	6	45	0.095	1.5	1.2
SRN4012TA-5R6M	5.6	$\pm 20$	6	40	0.12	1.4	1.1
SRN4012TA-6R8M	6.8	$\pm 20$	6	35	0.125	1.3	0.9
SRN4012TA-100M	10	$\pm 20$	10	30	0.18	1.1	0.8
SRN4012TA-150M	15	$\pm 20$	10	24	0.26	0.75	0.65
SRN4012TA-220M	22	$\pm 20$	10	18	0.4	0.62	0.5

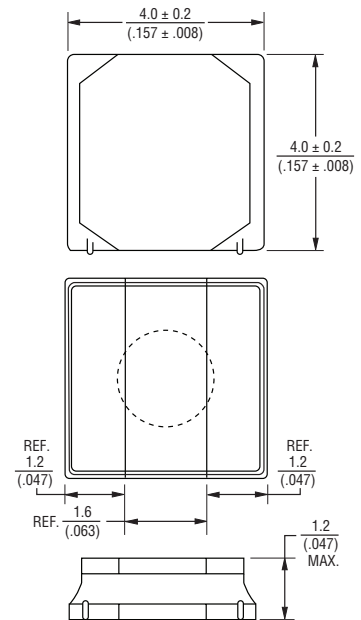
### General Specifications

Operating Temperature ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature .. -40 °C to +125 °C  
 Temperature Rise ..... 40 °C at rated I<sub>rms</sub>  
 Rated Current  
 ..... Inductance drops 30 % at I<sub>sat</sub>  
 Failure In Time (FIT) ..... 24.7/10<sup>9</sup> hours  
 Mean Time Between Failures (MTBF)  
 ..... 40.4 x 10<sup>6</sup> hours

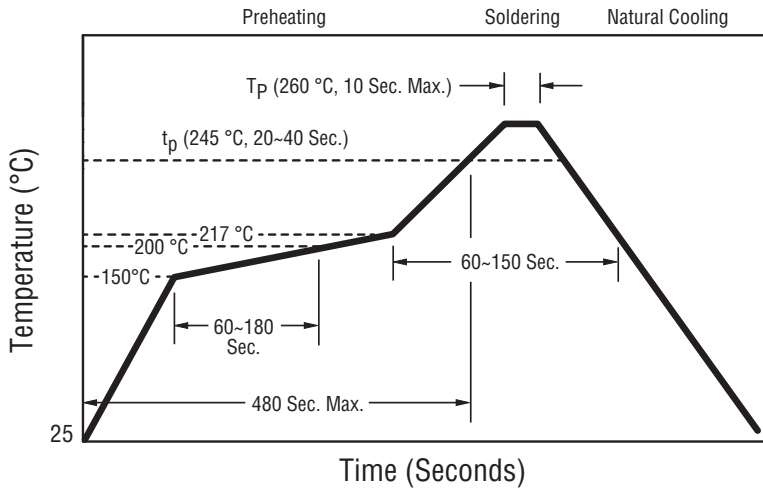
### Materials

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

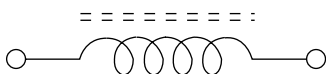
### Product Dimensions



### Soldering Profile



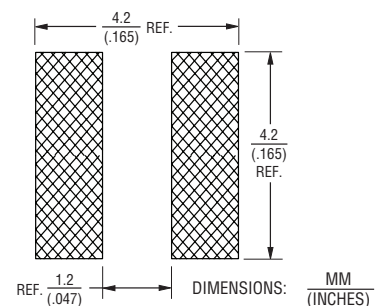
### Electrical Schematic



### How to Order

Model SRN4012TA - 100M  
 Value Code (see table) \_\_\_\_\_

### Recommended Layout



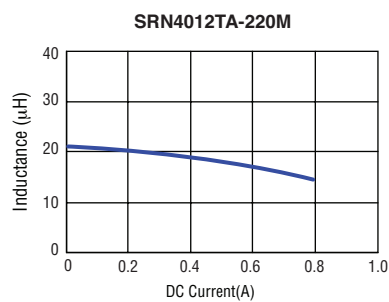
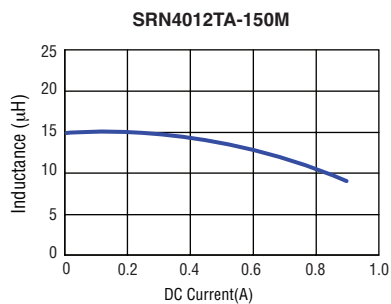
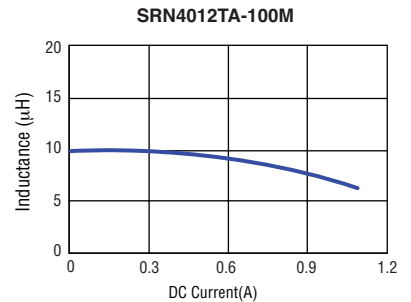
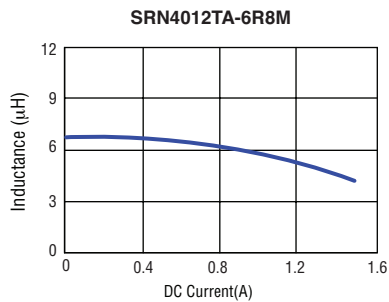
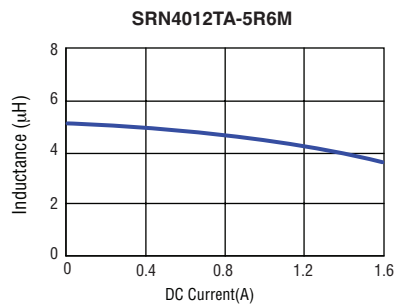
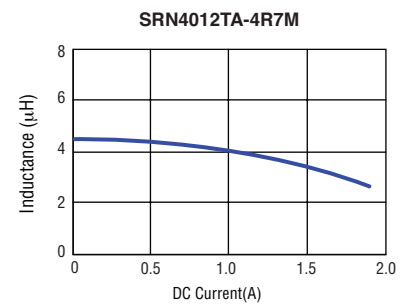
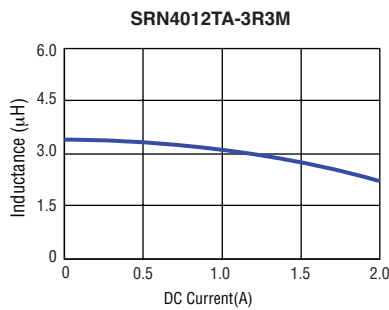
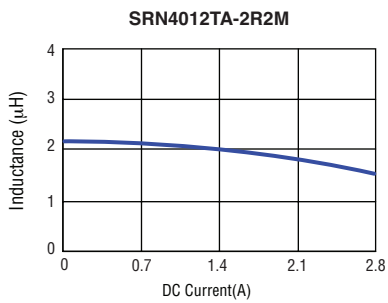
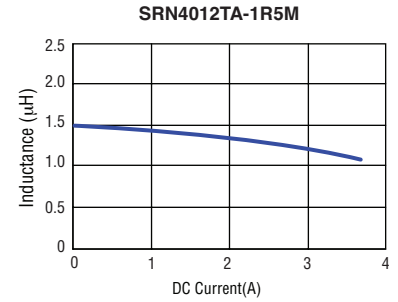
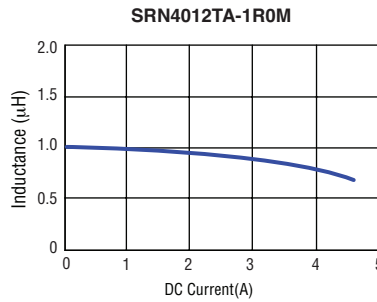
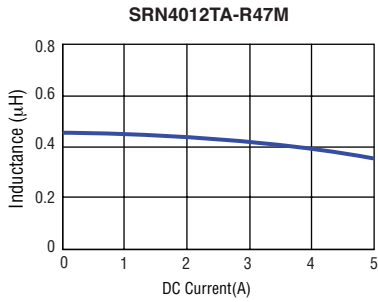
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* 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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# SRN4012TA Series - Semi-shielded Power Inductors



## Inductance vs. Current



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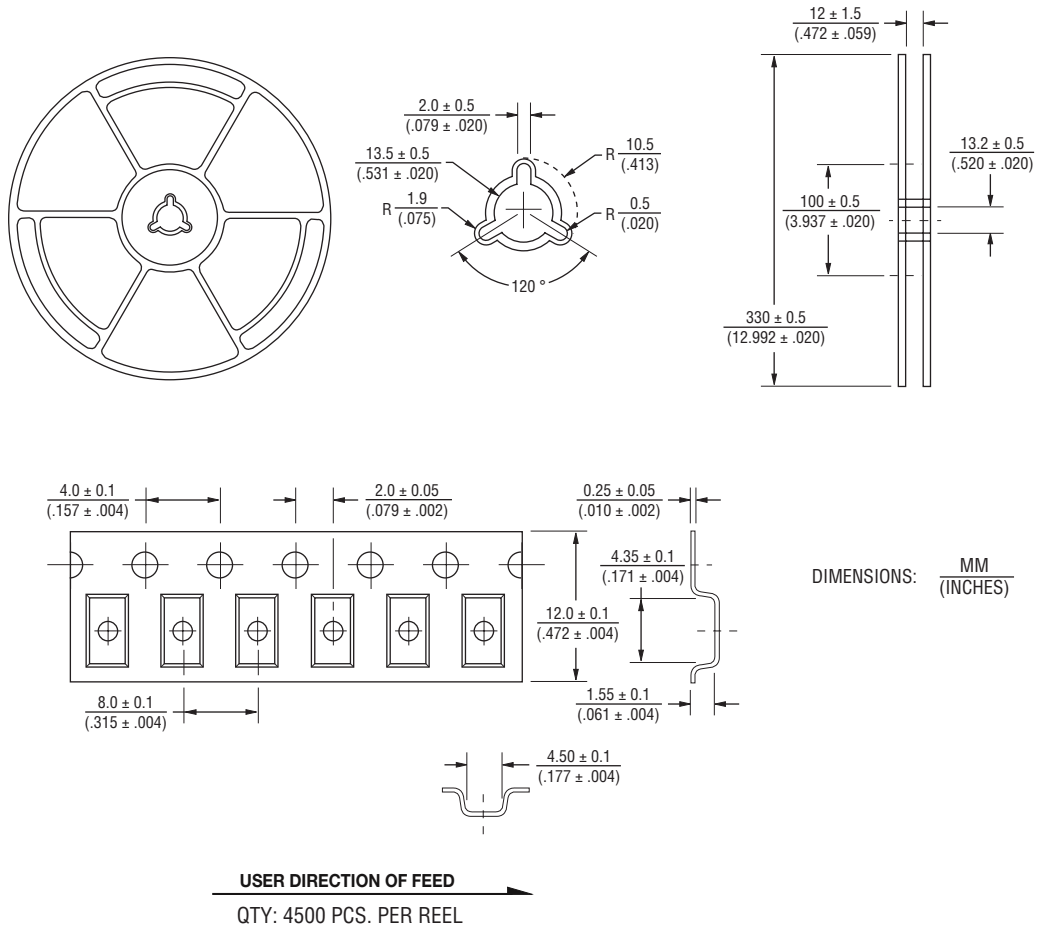
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# SRN4012TA Series - Semi-shielded Power Inductors

**BOURNS®**

## Packaging Specifications



REV. 07/22

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