



## Features

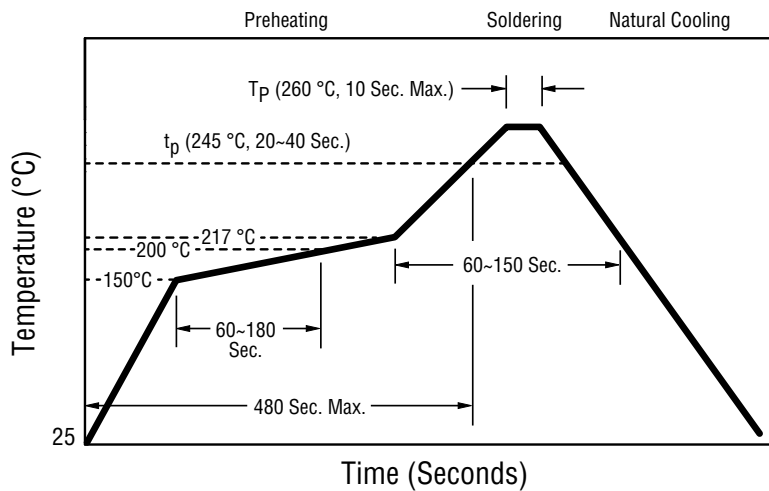
- Semi-shielded construction
- Inductance range: 0.47 to 22  $\mu\text{H}$
- Rated current up to 3.2 A
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

# SRN4012TA Series - Semi-shielded Power Inductors

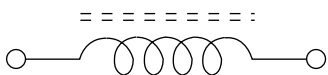
## Electrical Specifications @ 25 °C

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 ( $\mu\text{H}$ )	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-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

## Soldering Profile



## Electrical Schematic



## How to Order

Model SRN4012TA - 100M  
 Value Code (see table)

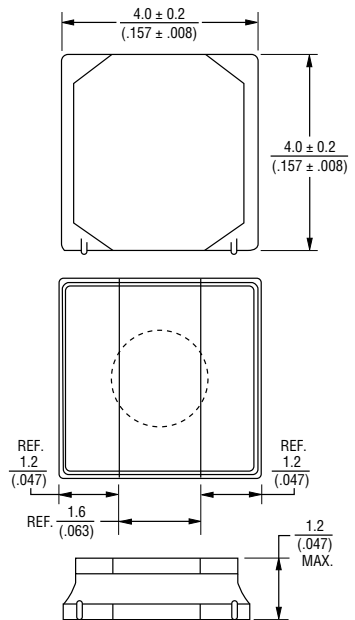
## General Specifications

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

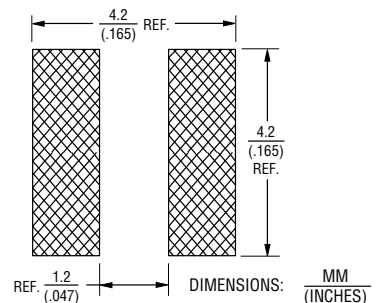
## Materials

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

## Product Dimensions



## Recommended Layout



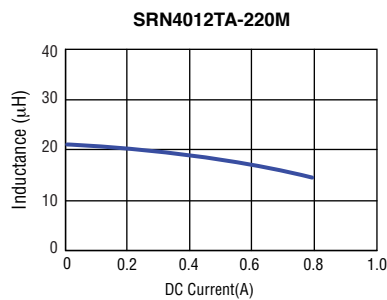
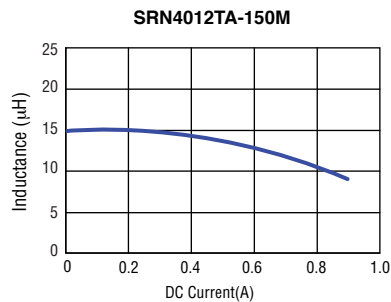
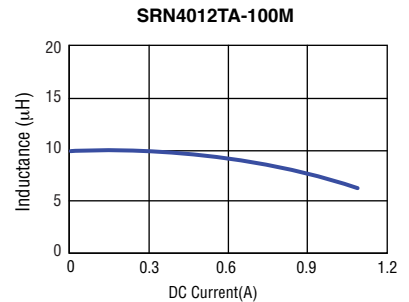
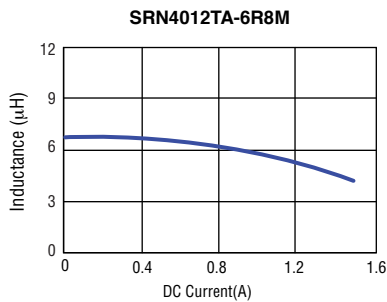
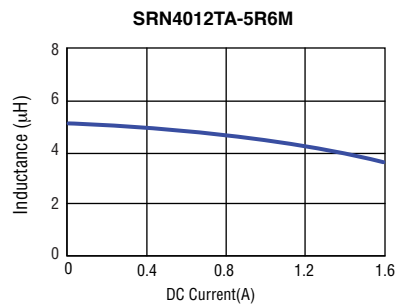
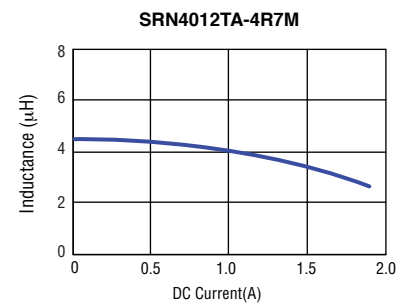
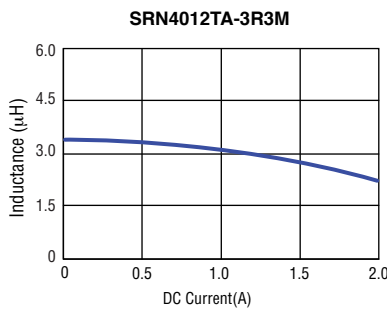
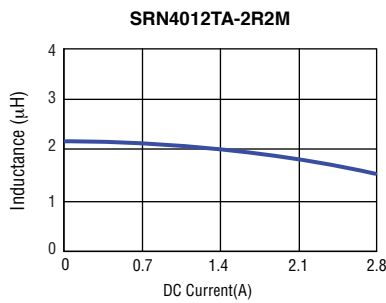
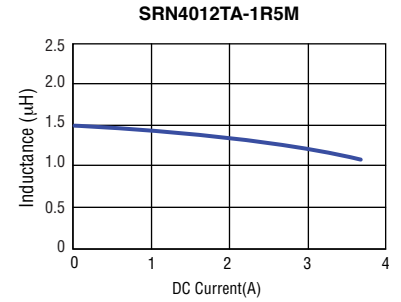
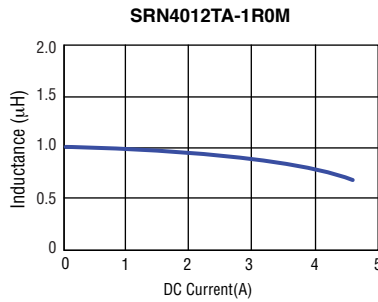
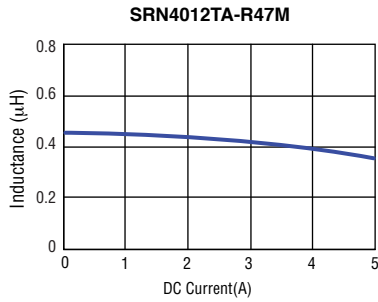
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
 \*\*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

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## Inductance vs. Current



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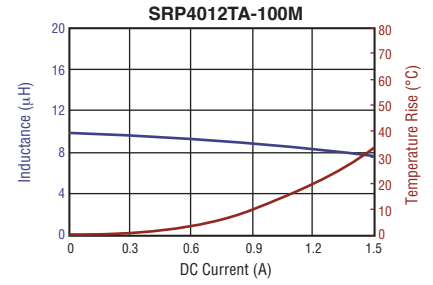
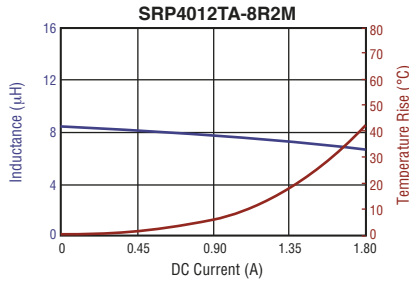
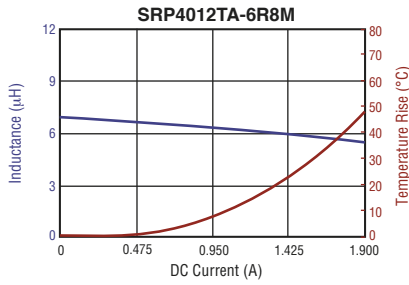
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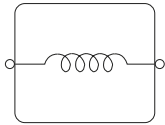
# SRP4012TA Series - Shielded Power Inductors



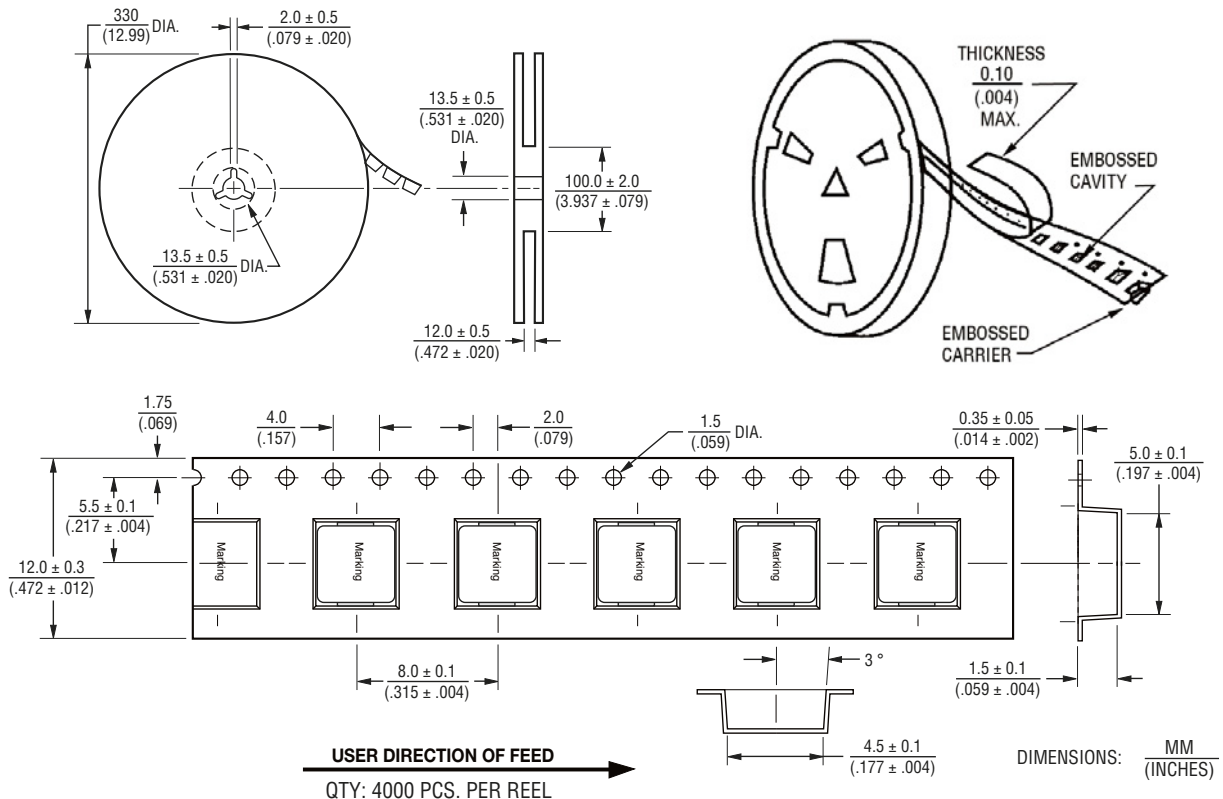
## L vs. I Charts



## Electrical Schematic



## Packaging Specifications



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