



### 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\*\*

### Applications

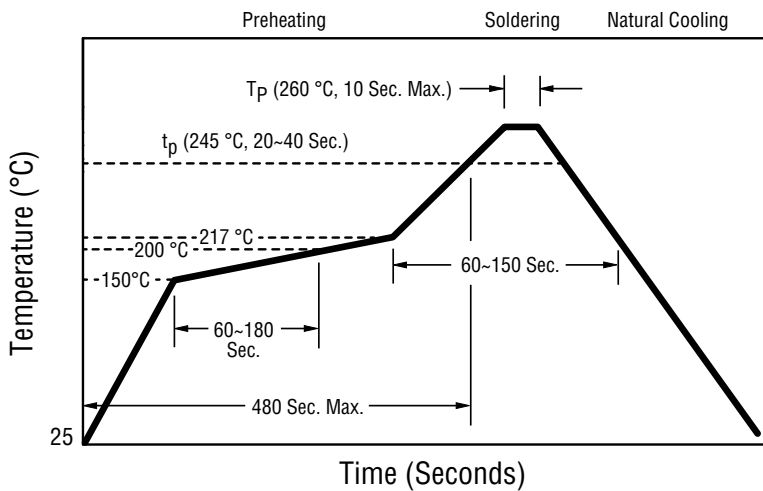
- Automotive systems:
  - Driver assistant
  - Infotainment
  - Lighting
- DC/DC converters
- Power supplies
- Digital video cameras
- HDDs
- Smartphones
- Televisions, LCD displays

## SRN4012TA Series - Semi-shielded Power Inductors

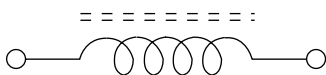
### Electrical Specifications @ 25 °C

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-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

SRN4012TA - 100M

Model \_\_\_\_\_  
Value Code (see table) \_\_\_\_\_

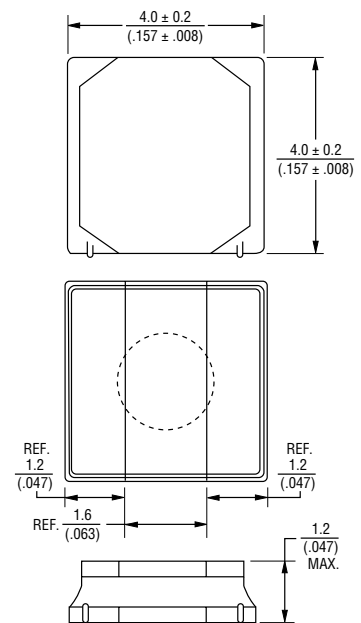
### General Specifications

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

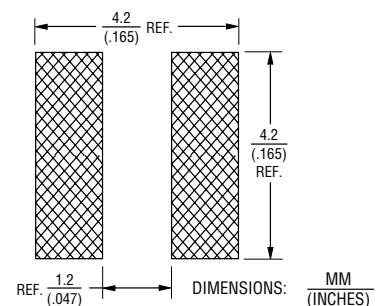
### Materials

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

### Product Dimensions



### Recommended Layout



\*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. Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

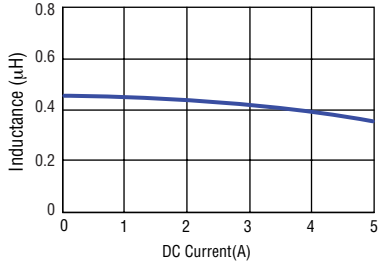
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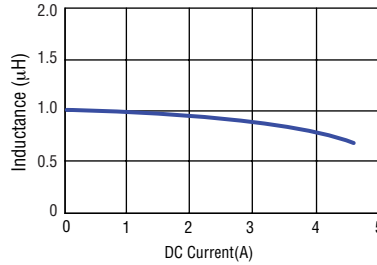
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## Inductance vs. Current

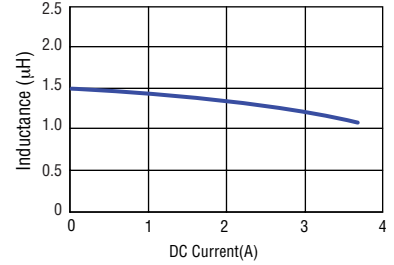
**SRN4012TA-R47M**



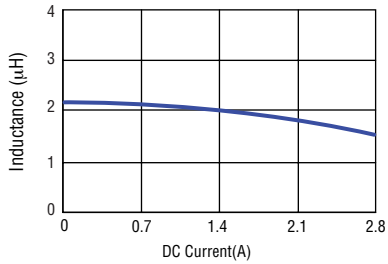
**SRN4012TA-1R0M**



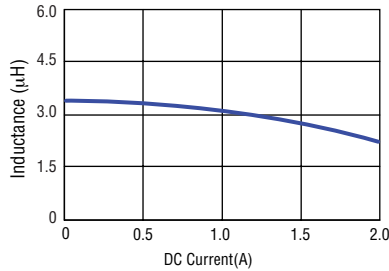
**SRN4012TA-1R5M**



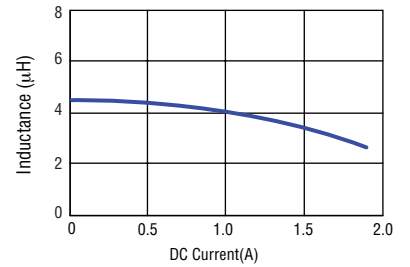
**SRN4012TA-2R2M**



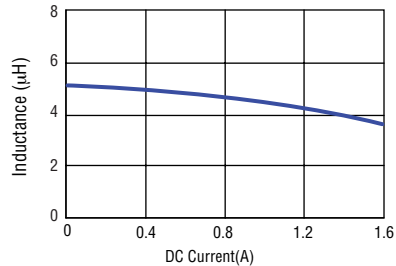
**SRN4012TA-3R3M**



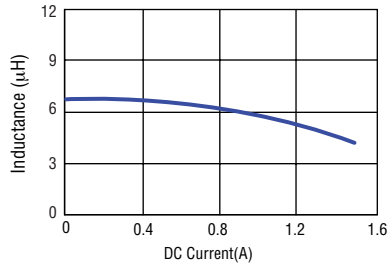
**SRN4012TA-4R7M**



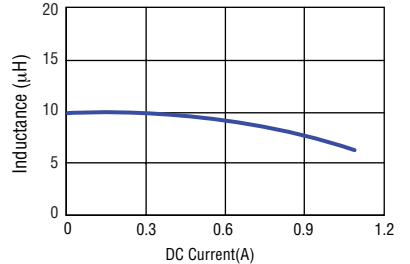
**SRN4012TA-5R6M**



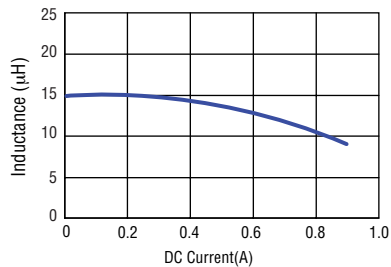
**SRN4012TA-6R8M**



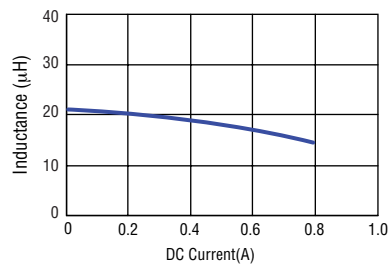
**SRN4012TA-100M**



**SRN4012TA-150M**



**SRN4012TA-220M**

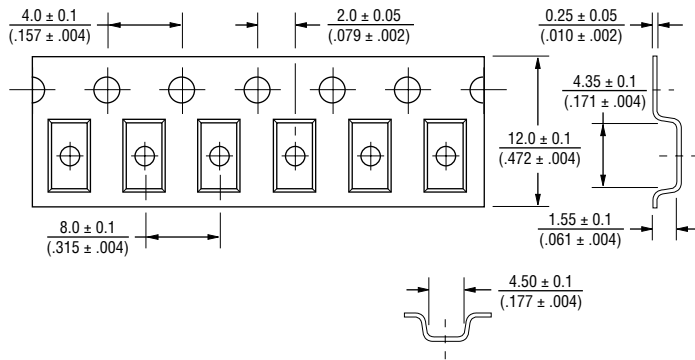
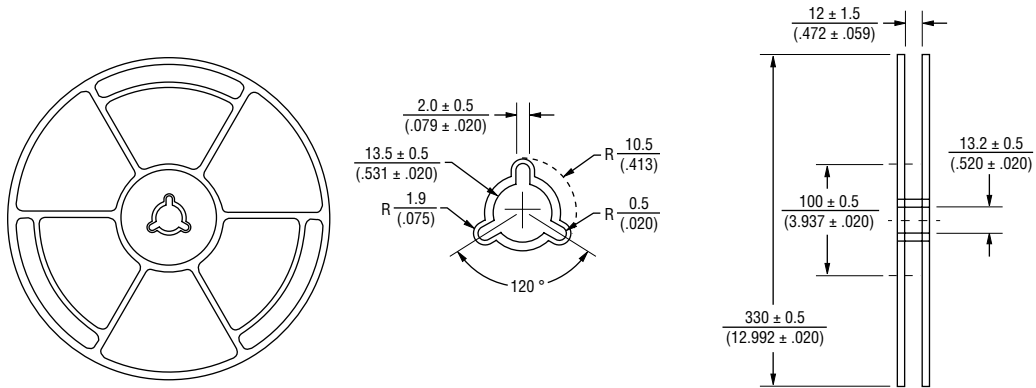


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# SRN4012TA Series - Semi-shielded Power Inductors

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## Packaging Specifications



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

USER DIRECTION OF FEED →

QTY: 4500 PCS. PER REEL

REV. 11/16

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