



## 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\*\*



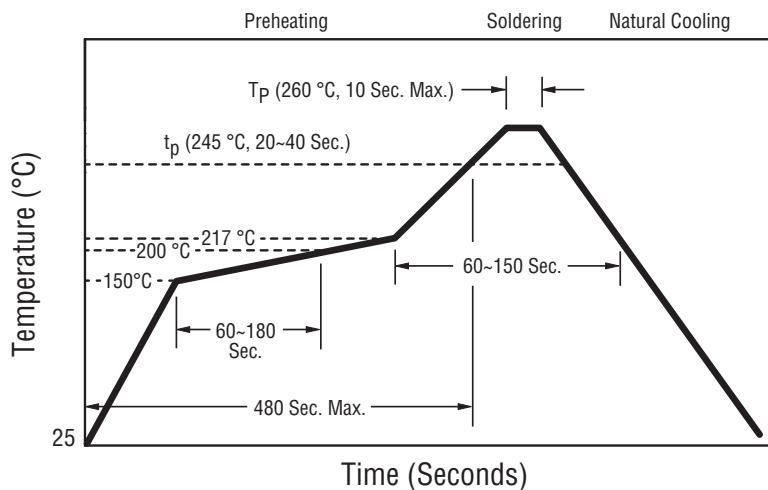
This series is currently available but not recommended for new designs. A possible alternative is the [Model SRN4012BTA](#).

## SRN4012TA Series - Semi-shielded Power Inductors

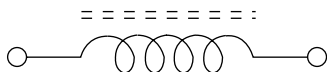
### Electrical Specifications @ 25 °C

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

### Soldering Profile



### Electrical Schematic



### How to Order

SRN4012TA - 100M

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



**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.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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### 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

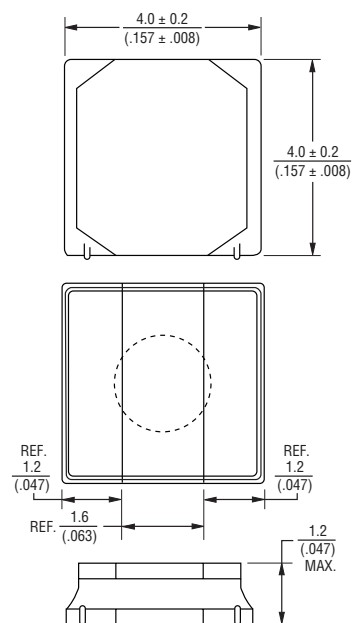
Wire ..... Enameled copper

Terminal Finish ..... Sn

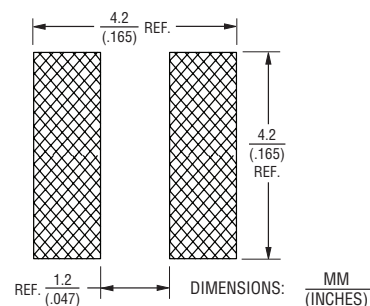
Coating ..... Magnetic epoxy resin

Packaging ..... 4500 pcs. per 13-inch reel

### Product Dimensions



### Recommended Layout

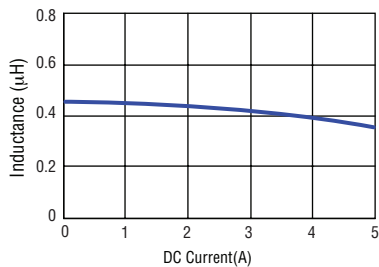


# SRN4012TA Series - Semi-shielded Power Inductors

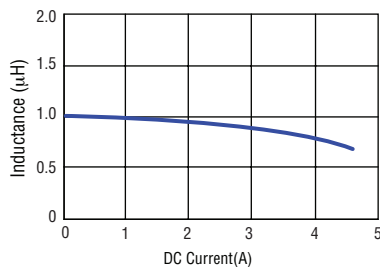
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## Inductance vs. Current

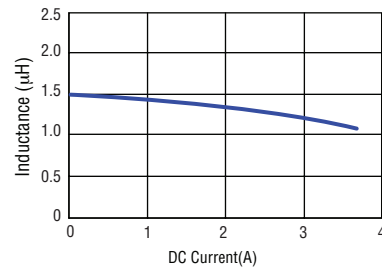
**SRN4012TA-R47M**



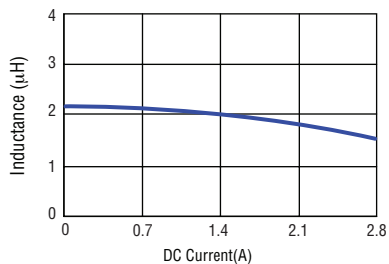
**SRN4012TA-1R0M**



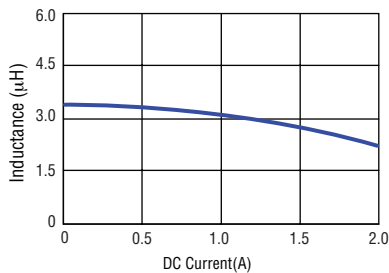
**SRN4012TA-1R5M**



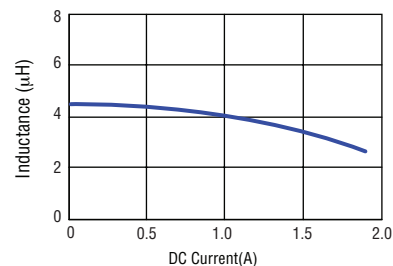
**SRN4012TA-2R2M**



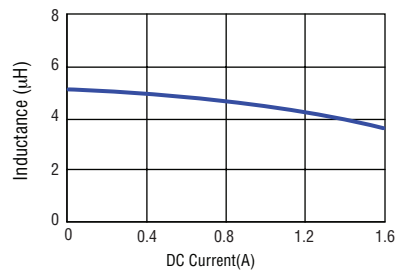
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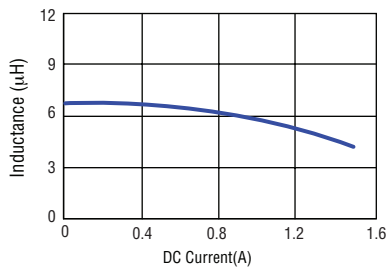
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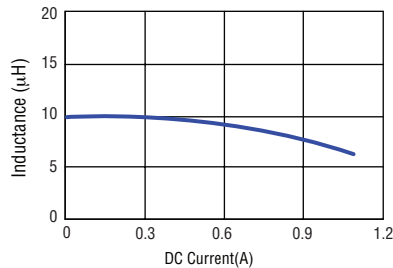
**SRN4012TA-5R6M**



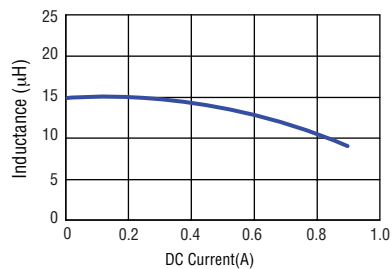
**SRN4012TA-6R8M**



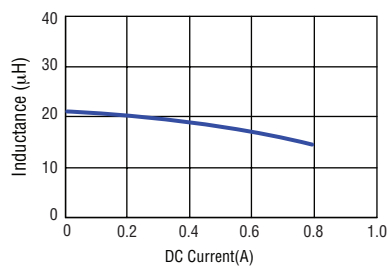
**SRN4012TA-100M**



**SRN4012TA-150M**



**SRN4012TA-220M**



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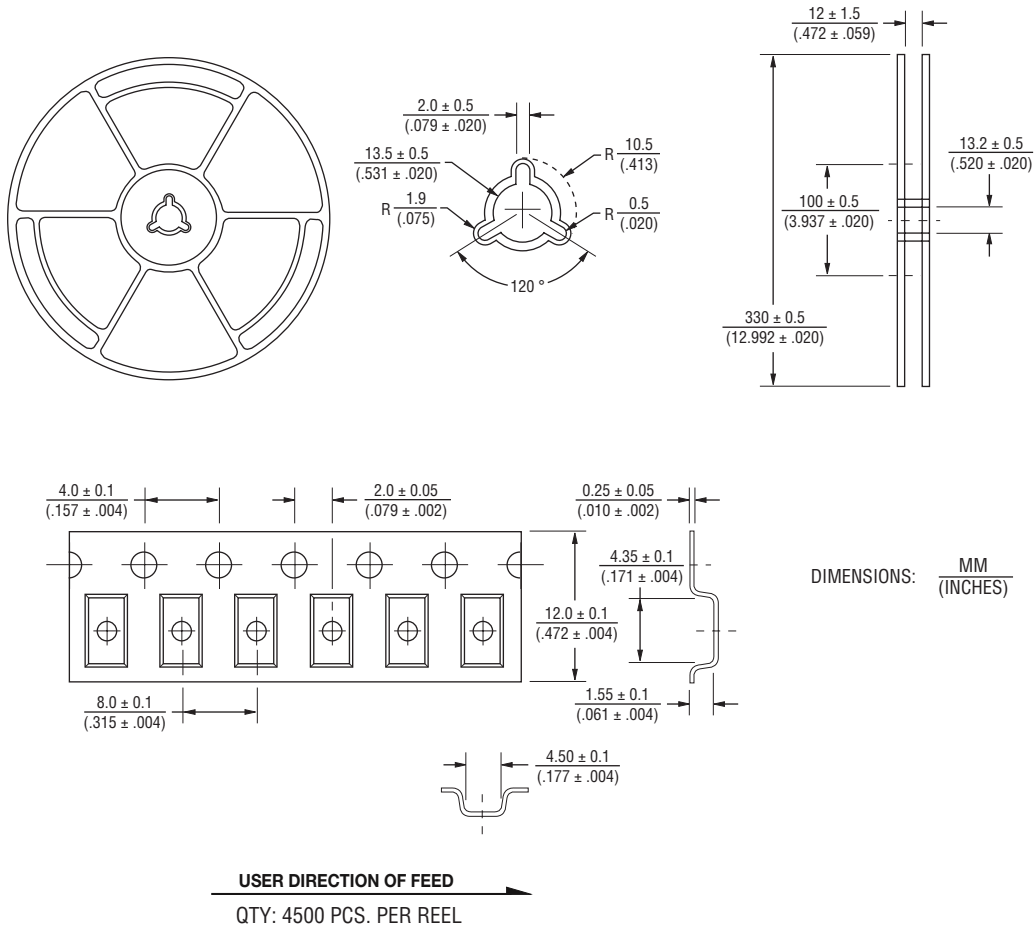
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# SRN4012TA Series - Semi-shielded Power Inductors

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## Packaging Specifications



REV. 07/22

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