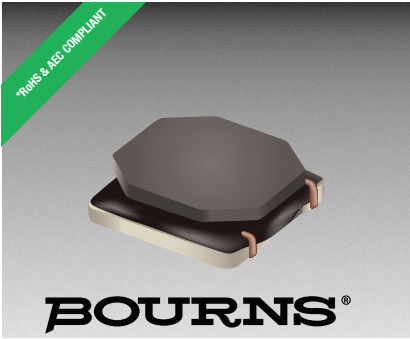





**THE DATASHEET OF  
SRN4012TA-220M**





## 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

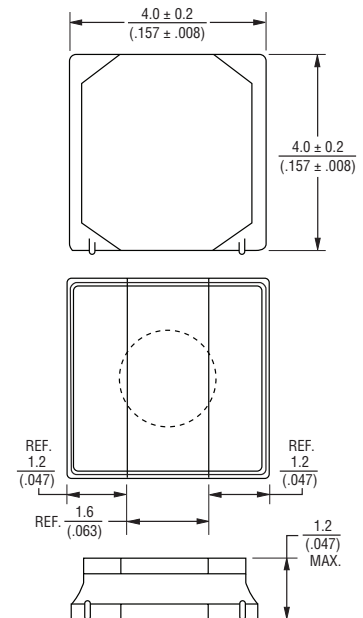
### General Specifications

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

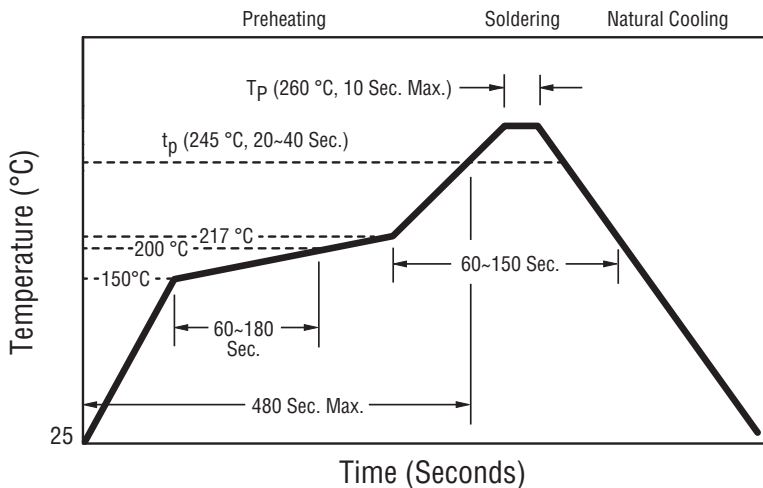
### Materials

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

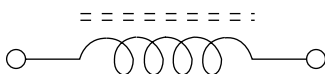
### Product Dimensions



### Soldering Profile



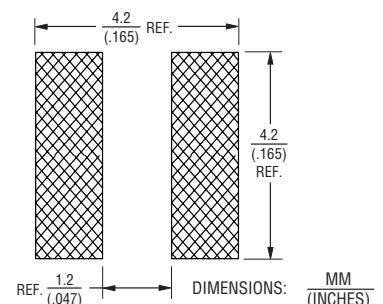
### Electrical Schematic



### How to Order

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

### Recommended Layout



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

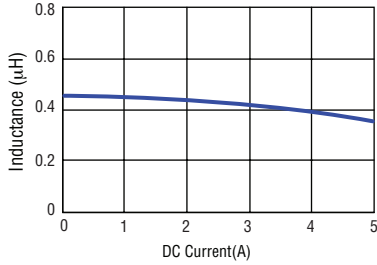
\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
 \*\*Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.  
 Specifications are subject to change without notice.  
 Users should verify actual device performance in their specific applications.  
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# SRN4012TA Series - Semi-shielded Power Inductors

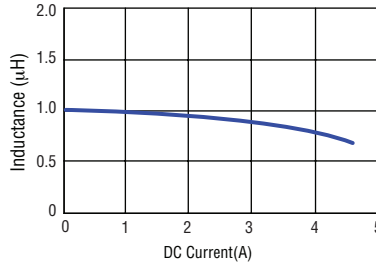
**BOURNS®**

## Inductance vs. Current

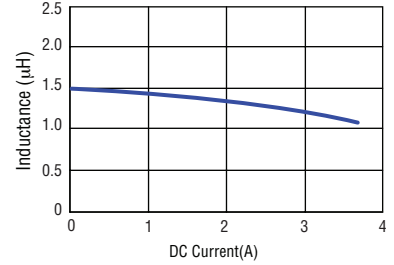
SRN4012TA-R47M



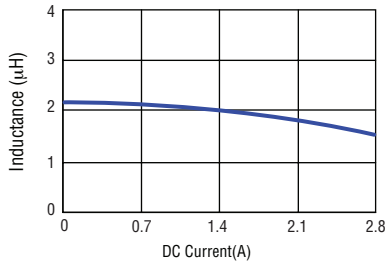
SRN4012TA-1R0M



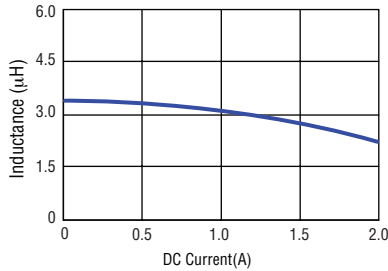
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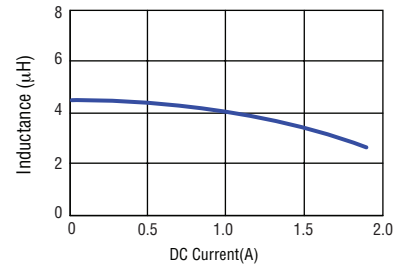
SRN4012TA-2R2M



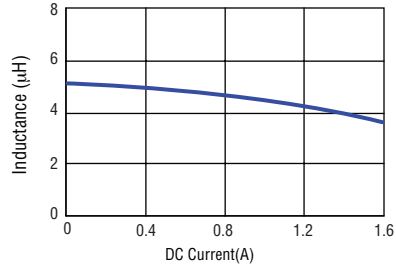
SRN4012TA-3R3M



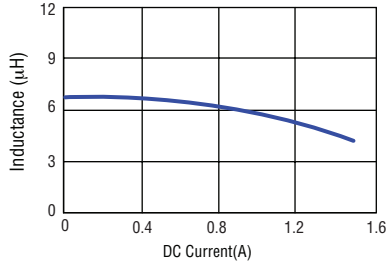
SRN4012TA-4R7M



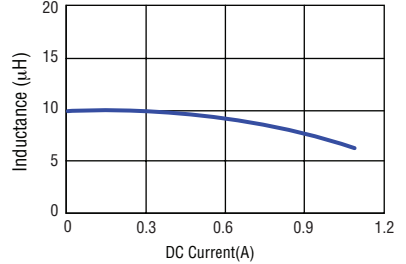
SRN4012TA-5R6M



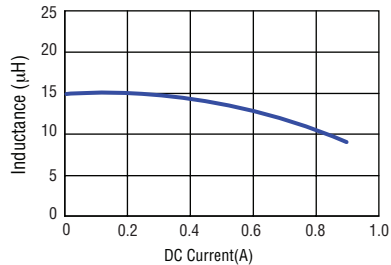
SRN4012TA-6R8M



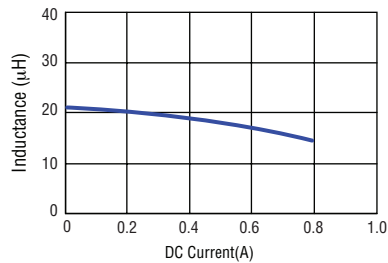
SRN4012TA-100M



SRN4012TA-150M



SRN4012TA-220M



Specifications are subject to change without notice.

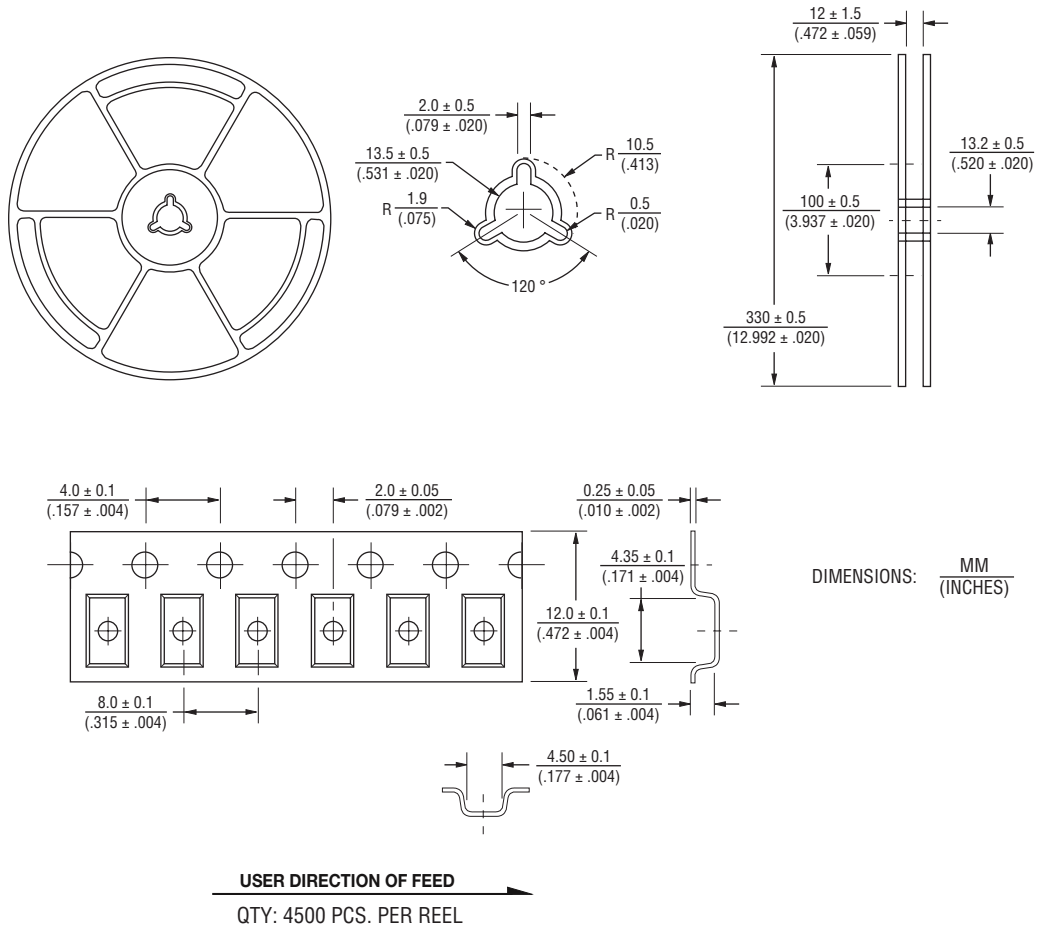
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# SRN4012TA Series - Semi-shielded Power Inductors

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## Packaging Specifications



REV. 07/22

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