



## Features

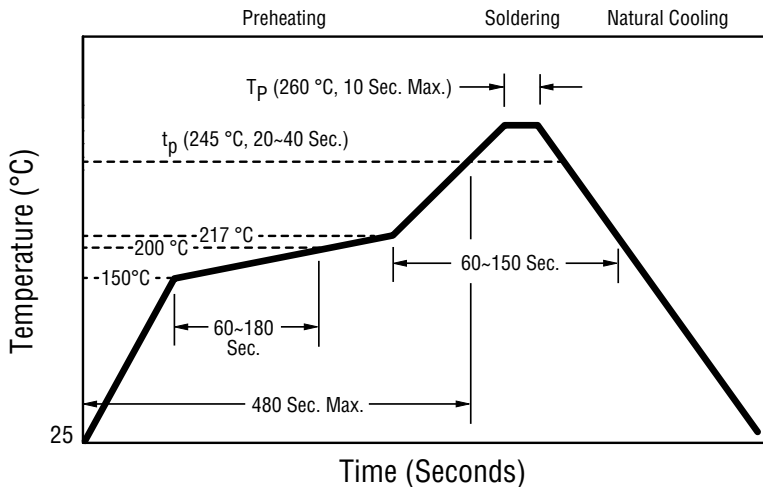
- Semi-shielded construction
- Inductance range: 1 to 22  $\mu$ H
- Rated current up to 2 A
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRN3012TA Series - Semi-shielded Power Inductors

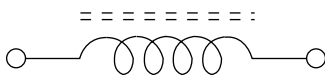
### Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 1 MHz / 0.1 V		Q (Min.) @ 1 MHz	SRF (MHz) Typ.	DCR ( $\Omega$ ) $\pm 20\%$	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)
	L ( $\mu$ H)	Tol. %					
SRN3012TA-1R0Y	1.0	$\pm 30$	10	150	0.042	2.00	2.15
SRN3012TA-1R5Y	1.5	$\pm 30$	15	130	0.056	1.85	1.7
SRN3012TA-2R2M	2.2	$\pm 20$	15	90	0.08	1.7	1.5
SRN3012TA-3R3M	3.3	$\pm 20$	15	70	0.1	1.55	1.2
SRN3012TA-4R7M	4.7	$\pm 20$	18	55	0.13	1.3	1.05
SRN3012TA-6R8M	6.8	$\pm 20$	20	45	0.18	1.05	0.9
SRN3012TA-100M	10	$\pm 20$	20	40	0.245	0.89	0.76
SRN3012TA-150M	15	$\pm 20$	20	35	0.386	0.74	0.62
SRN3012TA-220M	22	$\pm 20$	22	25	0.58	0.61	0.49

### Soldering Profile



### Electrical Schematic



### How to Order

**SRN3012TA - 100M**

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

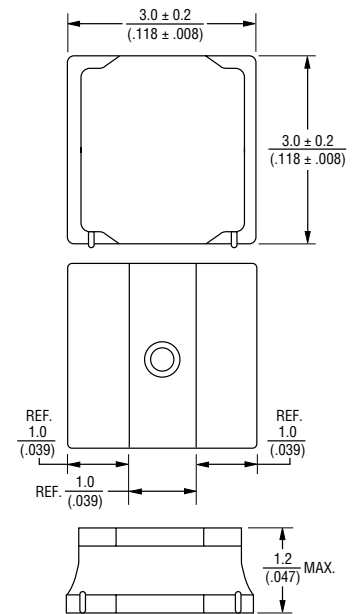
### General Specifications

Operating Temperature ..... -55 °C to +125 °C  
(Temperature rise included)  
Storage Temperature .. -55 °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

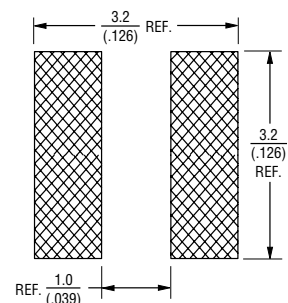
### Materials

Core ..... Ferrite  
Wire ..... Enameled copper  
Terminal Finish ..... Sn  
Coating ..... Magnetic epoxy resin  
Packaging ..... 2000 pcs. per 7-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.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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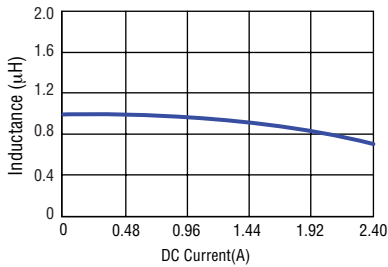
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

# SRN3012TA Series - Semi-shielded Power Inductors

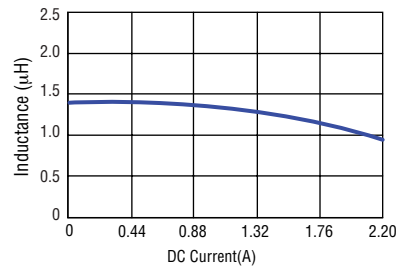


## Inductance vs. Current

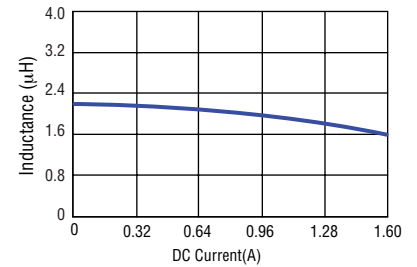
SRN3012TA-1R0Y



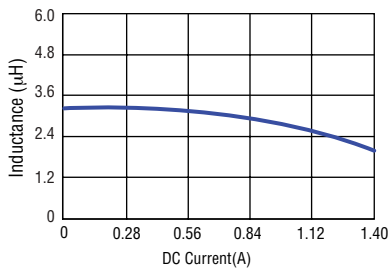
SRN3012TA-1R5Y



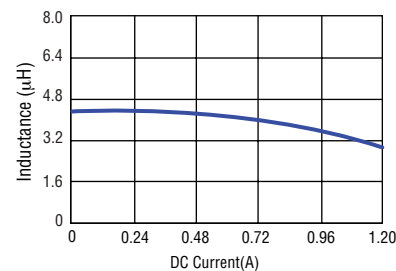
SRN3012TA-2R2M



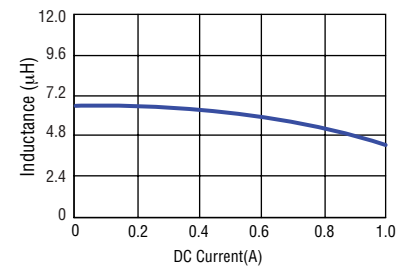
SRN3012TA-3R3M



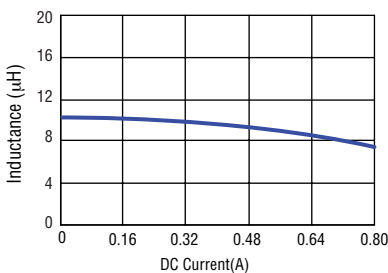
SRN3012TA-4R7M



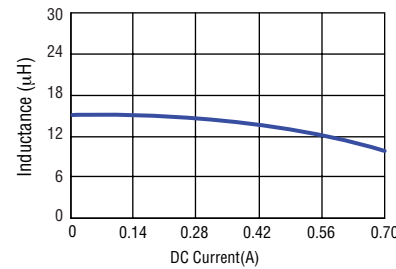
SRN3012TA-6R8M



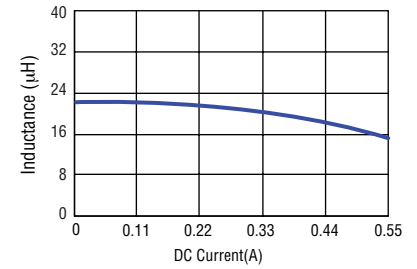
SRN3012TA-100M



SRN3012TA-150M



SRN3012TA-220M



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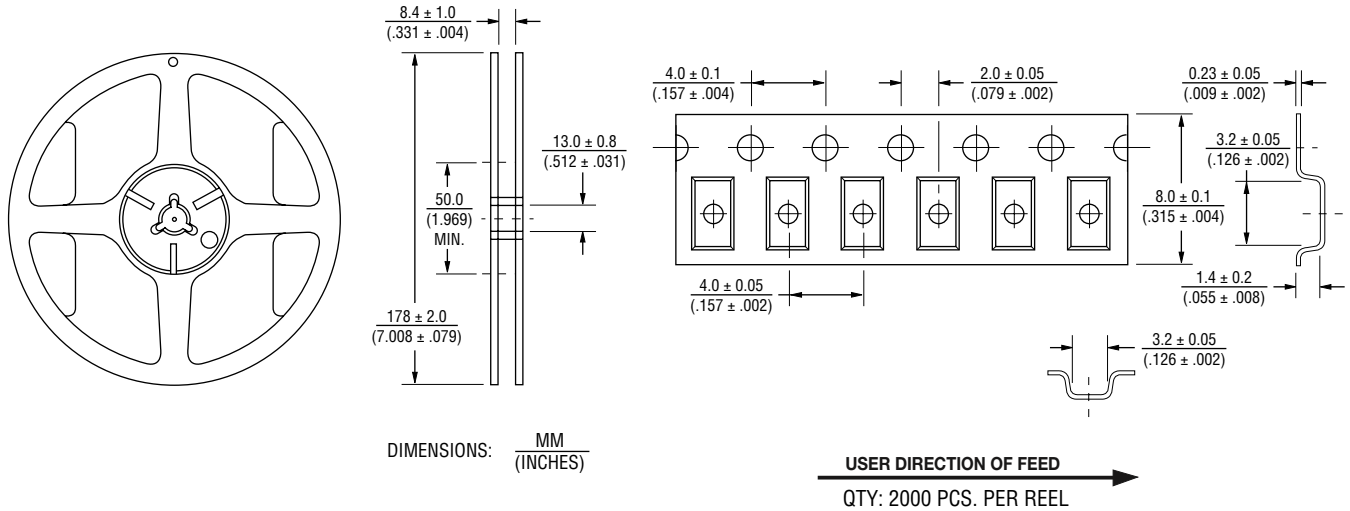
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# SRN3012TA Series - Semi-shielded Power Inductors

**BOURNS®**

## Packaging Specifications



REV. 05/19

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