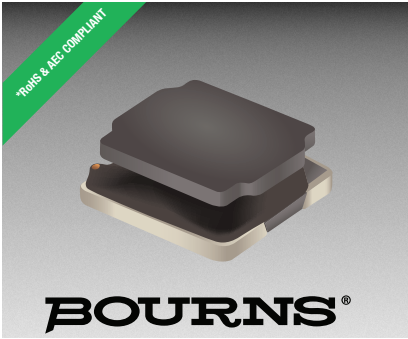




**THE DATASHEET OF  
SRN3012TA-6R8M**





### 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\*\*

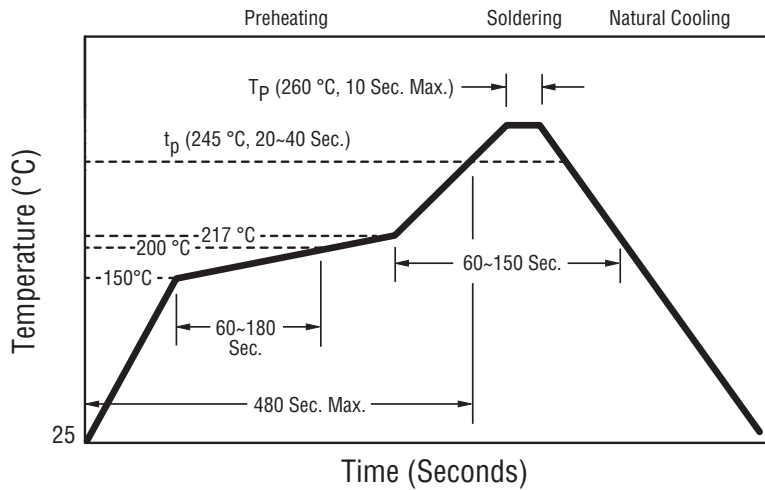
This series is currently available but not recommended for new designs. Contact Bourns for alternative product information.

## SRN3012TA Series - Semi-shielded Power Inductors

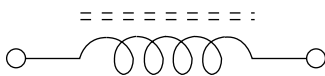
### Electrical Specifications @ 25 °C

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) \_\_\_\_\_

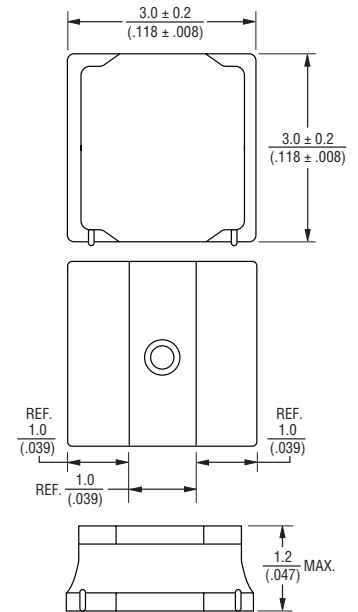
### General Specifications

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

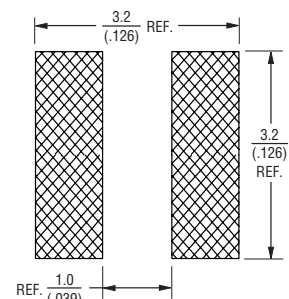
### Materials

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 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. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

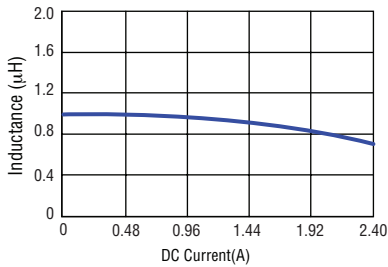
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

# SRN3012TA Series - Semi-shielded Power Inductors

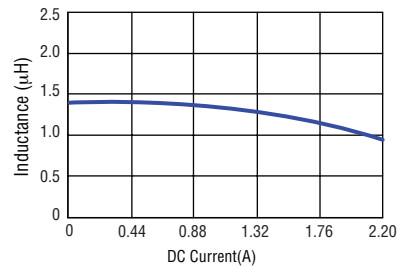
**BOURNS®**

## Inductance vs. Current

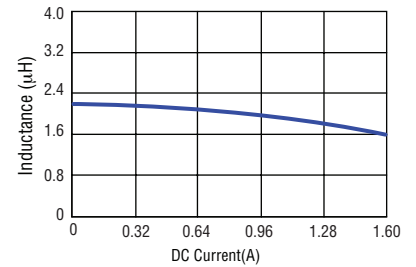
**SRN3012TA-1R0Y**



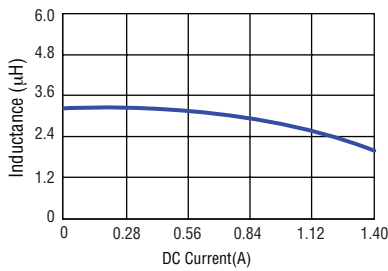
**SRN3012TA-1R5Y**



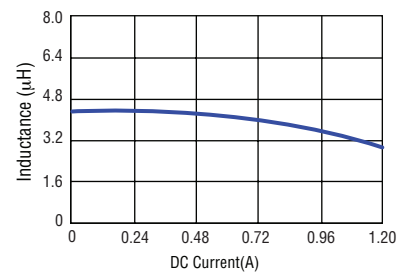
**SRN3012TA-2R2M**



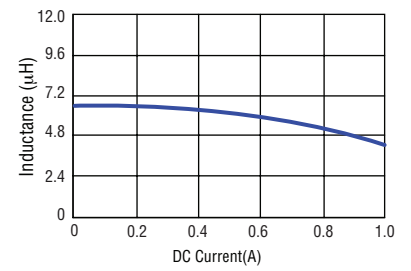
**SRN3012TA-3R3M**



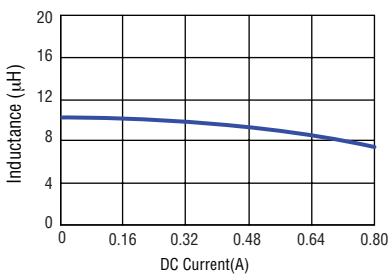
**SRN3012TA-4R7M**



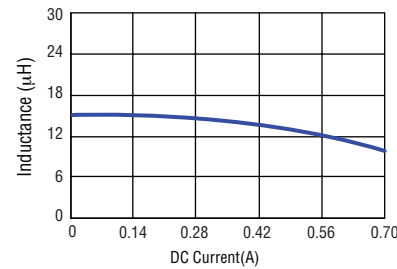
**SRN3012TA-6R8M**



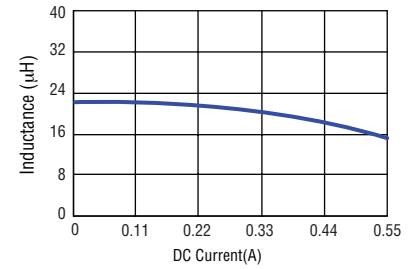
**SRN3012TA-100M**



**SRN3012TA-150M**



**SRN3012TA-220M**



Specifications are subject to change without notice.

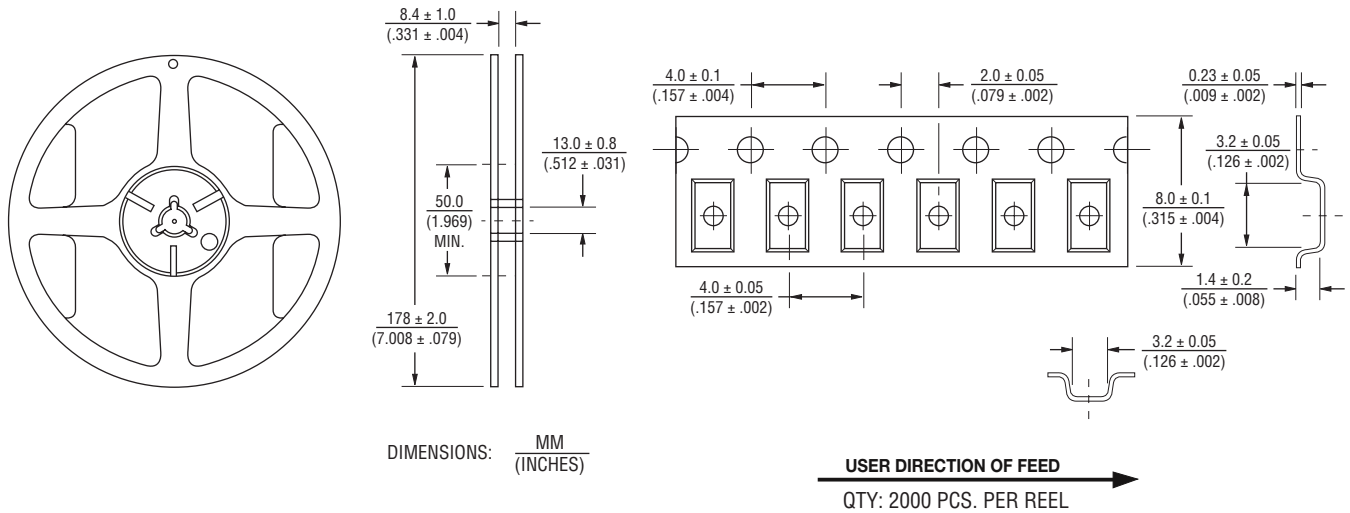
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# SRN3012TA Series - Semi-shielded Power Inductors

**BOURNS®**

## Packaging Specifications



REV. 06/22

Specifications are subject to change without notice.

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