



## Features

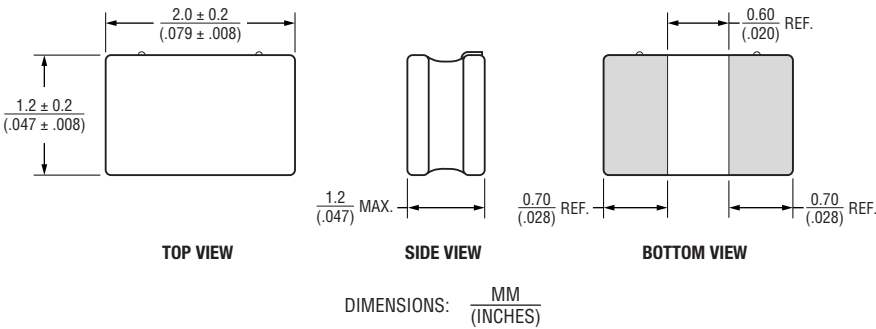
- Semi-shielded construction
- Miniature size
- High Q value
- High self-resonant frequency
- Low DCR
- RoHS compliant\* and halogen free\*\*

## SRN2012T Series - Semi-Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part No.	Inductance		Q Typ.	L & Q Test Freq. / Voltage	SRF (MHz) Typ.	DCR (Ω) ±30 %	I <sub>rms</sub> (mA) Typ.	I <sub>sat</sub> (mA) Typ.
	L (μH)	Tol. %						
SRN2012T-1R0K	1.0	10	14	7.9 MHz / 0.5 V	208	0.085	1300	1100
SRN2012T-2R2K	2.2	10	13	7.9 MHz / 0.5 V	100	0.18	1040	740
SRN2012T-4R7K	4.7	10	14	7.9 MHz / 0.5 V	65	0.36	840	520
SRN2012T-6R8K	6.8	10	14	7.9 MHz / 0.5 V	55	0.6	700	420
SRN2012T-100K	10	10	14	2.5 MHz / 0.5 V	40	0.8	560	360
SRN2012T-150K	15	10	15	2.5 MHz / 0.5 V	35	1.4	380	300
SRN2012T-220K	22	10	15	2.5 MHz / 0.5 V	20	1.76	340	240

### Product Dimensions



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**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 (Component)

..... -40 °C to +125 °C

Temperature Rise .... 40 °C at rated I<sub>rms</sub>1

Rated Current

..... Inductance drops 20 % at I<sub>sat</sub>

Moisture Sensitivity Level..... 1

ESD Classification (HBM)..... N/A

Note 1: Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

### Materials

Core..... Ferrite

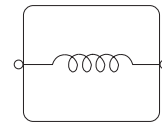
Wire ..... Enameled copper

Terminal Finish ..... Sn

Coating ..... Magnetic epoxy resin

Packaging..... 2000 pcs. per 7-inch reel

### Electrical Schematic



### How to Order

**SRN2012T - 1R0K**

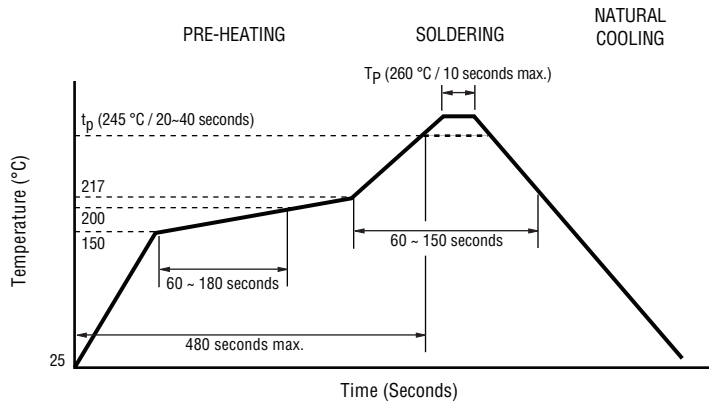
Model \_\_\_\_\_

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

# SRN2012T Series - Semi-Shielded Power Inductors

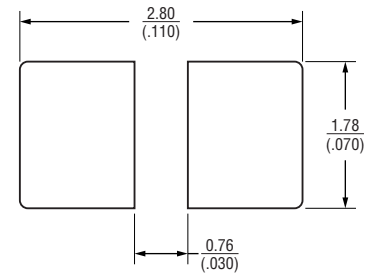
**BOURNS®**

## Soldering Profile



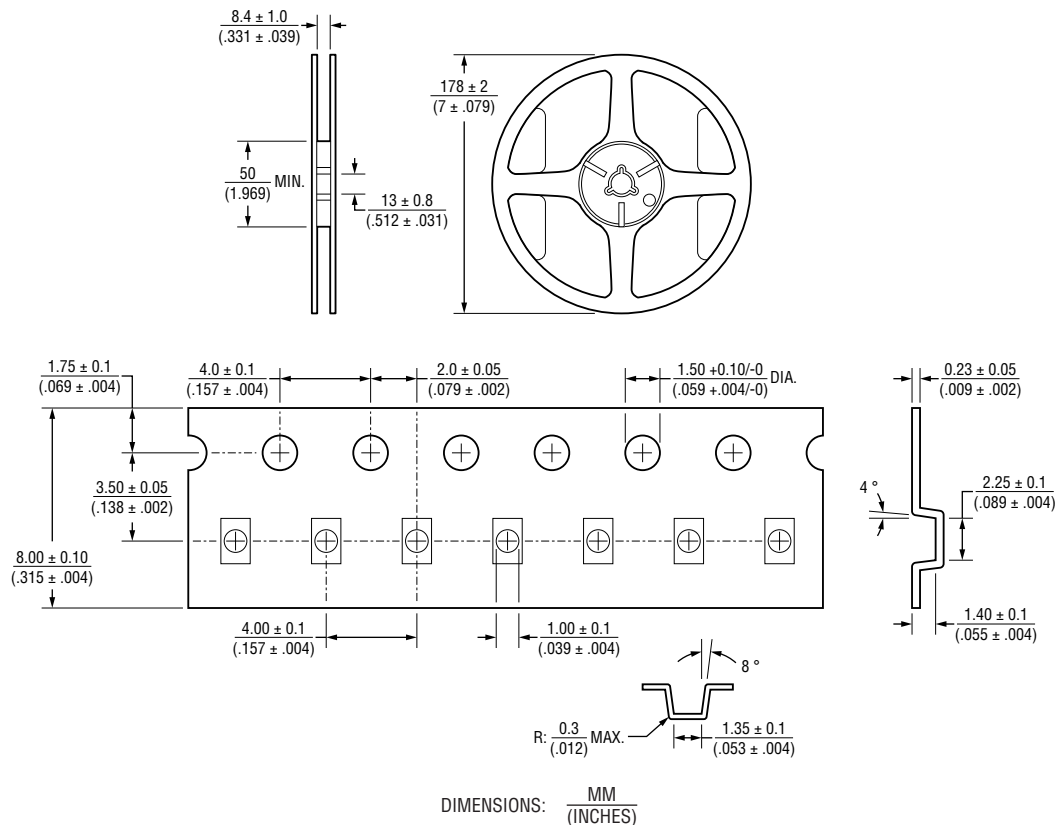
REFLOW TIMES: 3 MAX.

## Recommended Layout



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

## Packaging Specifications



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