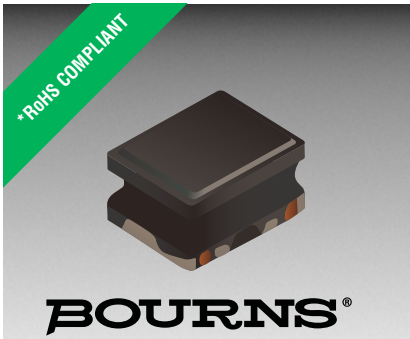




**THE DATASHEET OF  
SRN2012-1R0M**





## Features

- Semi-shielded construction
- Miniature size
- Low profile: 1.2 mm
- Inductance range: 0.24 to 2.2  $\mu$ H
- Rated current up to 3.5 A
- RoHS compliant\* and halogen free\*\*

## Applications

- DC/DC converters
- Notebook computers
- Digital video cameras
- HDDs
- Cellphones
- Televisions, LCD displays

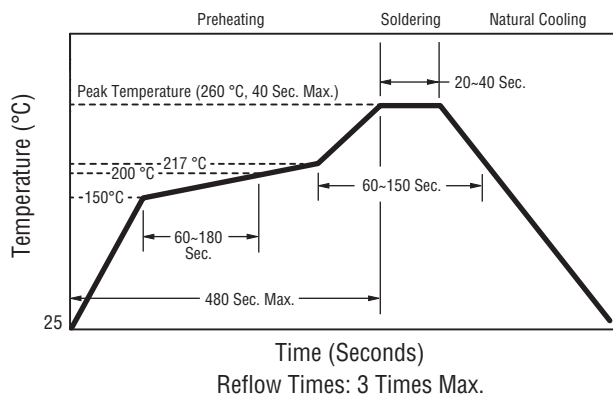
# SRN2012 Series - Semi-shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 1 MHz / 0.1 V		Q (Ref.)	Test Freq. (MHz)	SRF (MHz) Min.	DCR ( $\Omega$ ) Max.	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)
	L ( $\mu$ H)	Tol. %						
SRN2012-R24M	0.24	20	8	1	360	0.033	3.5	4.8
SRN2012-R47M	0.47	20	9	1	220	0.046	2.9	3.5
SRN2012-1R0M	1.0	20	10	1	110	0.104	2.3	2.5
SRN2012-1R5M	1.5	20	12	1	90	0.108	1.8	2.0
SRN2012-2R2M	2.2	20	13	1	70	0.186	1.3	1.6

### Soldering Profile

Peak Temperature: 260 °C max.  
 Max. Peak Temperature 260 °C: 40 sec. max.  
 Max. Time Above 217 °C: 60~150 sec. max.



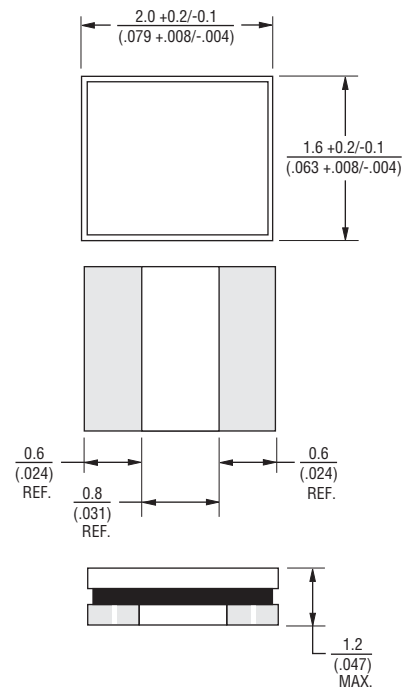
### General Specifications

Operating Temperature ..... -55 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature ..... -40 °C to +85 °C  
 Resistance to Solder Heat ..... +260 °C for 40 sec.  
 Temperature Rise ..... 40 °C at rated I<sub>rms</sub>  
 Rated Current ..... Inductance drops 30 % at I<sub>sat</sub>

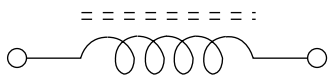
### Materials

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

### Product Dimensions



### Electrical Schematic



### How to Order

Model \_\_\_\_\_ SRN2012 - R24M  
 Value Code (see table) \_\_\_\_\_

# BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116

EMEA: Tel: +36 88 520 390 • Fax: +36 88 520 211

The Americas: Tel: +1-951 781-5500 • Fax: +1-951 781-5700

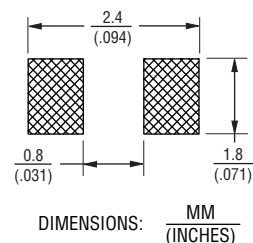
[www.bourns.com](http://www.bourns.com)



**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. 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)

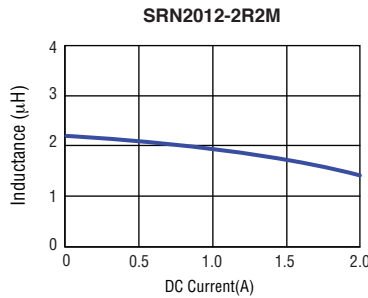
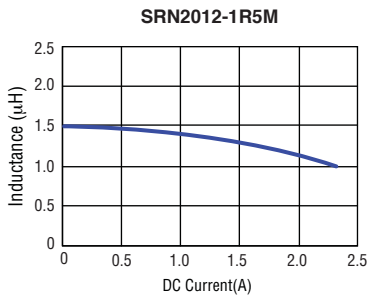
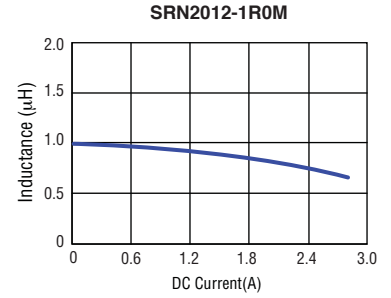
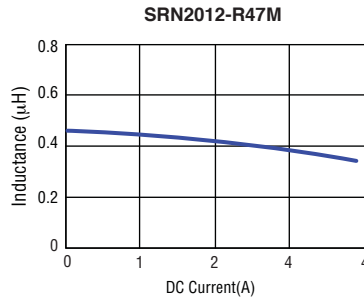
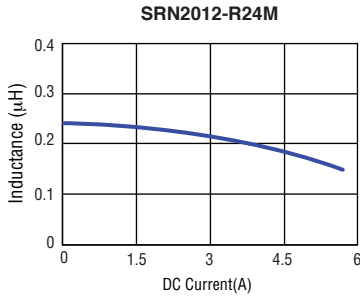
### Recommended Layout



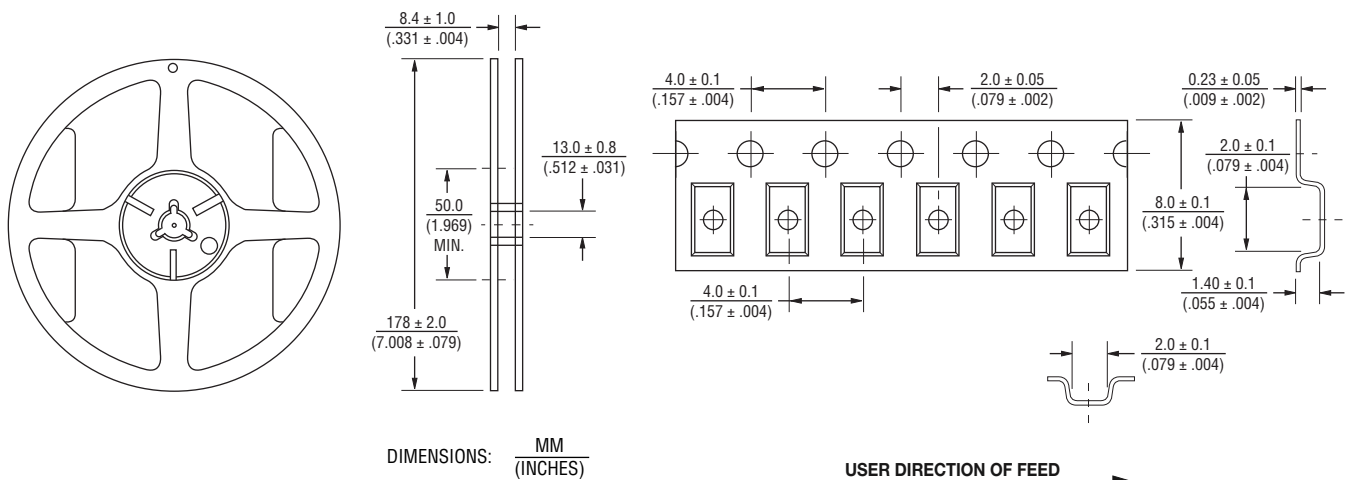
# SRN2012 Series - Semi-shielded Power Inductors

**BOURNS®**

## L vs. IDC



## Packaging Specifications



REV. 12/14

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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