



## Features

- Semi-shielded construction
- High rated current
- Component height 4.5 mm
- Inductance range: 1 to 220  $\mu$ H
- Rated current up to 4.2 A
- RoHS compliant\* and halogen free\*\*

## Applications

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

# SRN6045 Series - Semi-shielded Power Inductors

## Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 KHz/1 V		Q (Ref.)	Test Freq. (MHz)	SRF (MHz) Typ.	DCR ( $\Omega$ ) Max.	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)
	L ( $\mu$ H)	Tol. %						
SRN6045-1R0Y	1.0	30	15	7.96	50	0.0139	4.2	8.5
SRN6045-1R3Y	1.3	30	15	7.96	48	0.017	4.0	8.0
SRN6045-1R8Y	1.8	30	15	7.96	38	0.0198	3.7	7.0
SRN6045-2R2Y	2.2	30	15	7.96	35	0.0251	3.5	6.0
SRN6045-3R3Y	3.3	30	15	7.96	27	0.0302	3.2	5.0
SRN6045-4R7Y	4.7	30	15	7.96	22	0.0376	3.0	4.0
SRN6045-6R8Y	6.8	30	15	7.96	20	0.0473	2.8	3.8
SRN6045-8R2Y	8.2	30	15	7.96	18	0.055	2.7	3.3
SRN6045-100M	10	20	17	2.52	15	0.0586	2.5	3.0
SRN6045-150M	15	20	17	2.52	13	0.0958	1.9	2.3
SRN6045-220M	22	20	17	2.52	11	0.142	1.5	1.9
SRN6045-330M	33	20	17	2.52	9	0.188	1.4	1.5
SRN6045-470M	47	20	13	2.52	7	0.257	1.1	1.3
SRN6045-680M	68	20	13	2.52	6	0.351	0.9	1.0
SRN6045-101M	100	20	22	0.796	5	0.494	0.7	0.8
SRN6045-221M	220	20	25	0.796	4	1.18	0.6	0.7

## General Specifications

Operating Temperature ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature (Component)  
 ..... -40 °C to +125 °C  
 Resistance to Solder Heat  
 ..... +250 °C for 10 sec.  
 Temperature Rise ..... 40 °C at rated I<sub>rms</sub>  
 Rated Current  
 ..... Inductance drops 30 % at I<sub>sat</sub>  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM) ..... N/A

## Materials

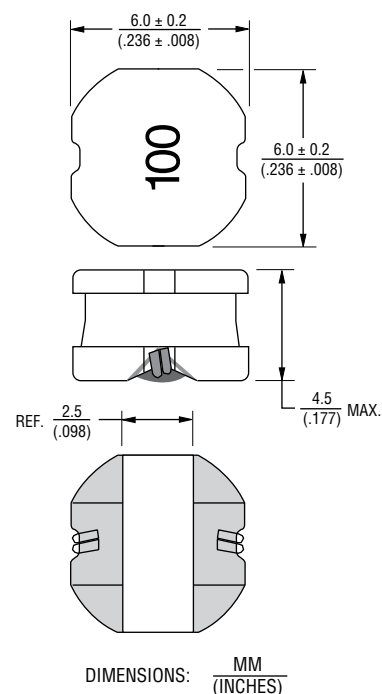
Core ..... Ferrite  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn/Ag/Cu  
 Coating ..... Magnetic epoxy resin  
 Packaging ..... 1000 pcs. per 13-inch reel

## How to Order

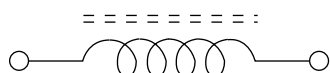
SRN6045 - 100M

Model .....  
 Value Code (see table) .....

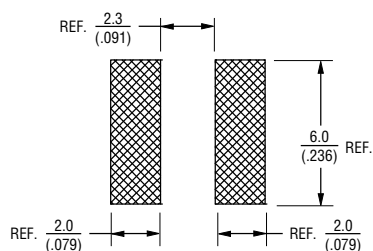
## Product Dimensions



## Electrical Schematic



## Recommended Layout



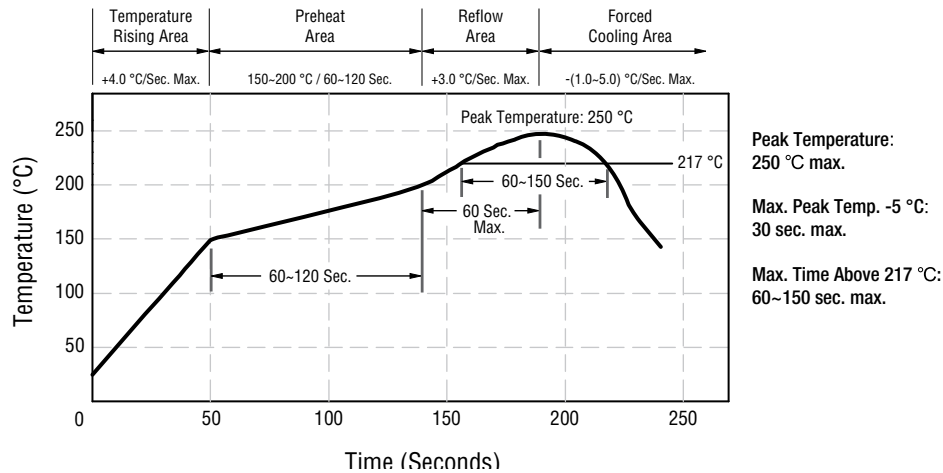
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* 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.  
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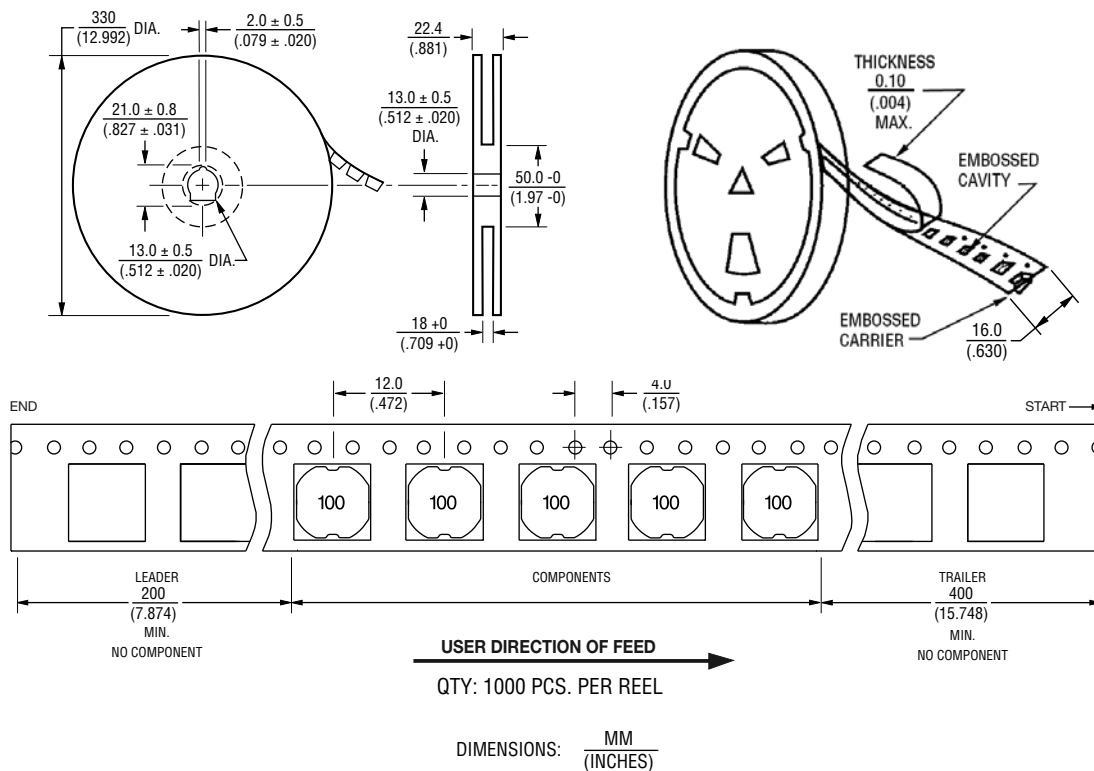
# SRN6045 Series - Semi-shielded Power Inductors

**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 08/17

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Users should verify actual device performance in their specific applications.

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