



**THE DATASHEET OF  
SRN6045-680M**





## 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

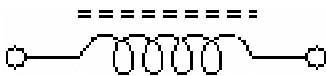
Core ..... Ferrite  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn/Ag/Cu  
 Coating ..... Magnetic epoxy resin  
 Packaging ..... 1000 pcs. per 13-inch reel

### How to Order

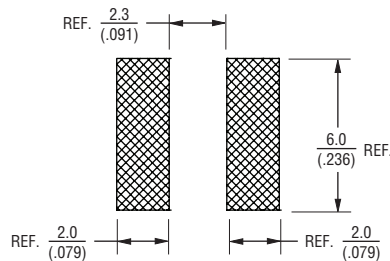
SRN6045 - 100M

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

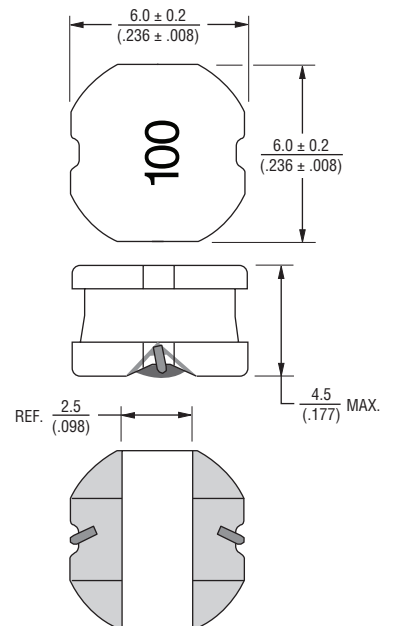
### Electrical Schematic



### Recommended Layout



### Product Dimensions



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



**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.

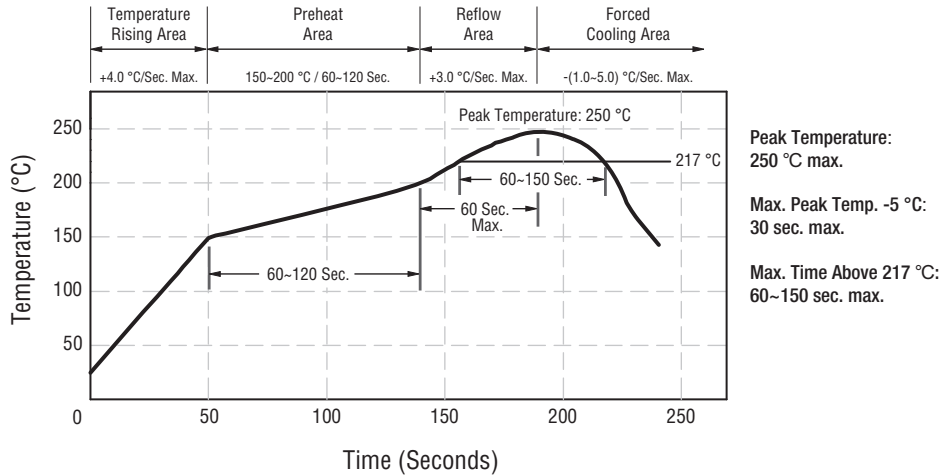
Users should verify actual device performance in their specific applications.

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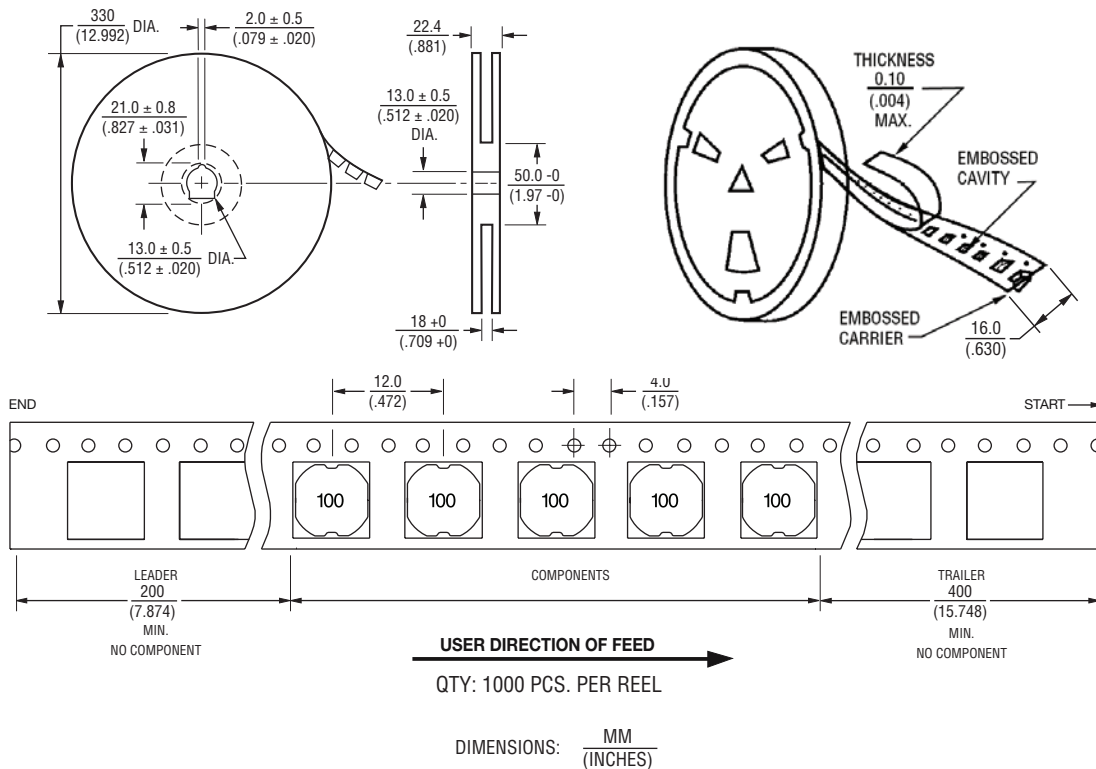
# SRN6045 Series - Semi-shielded Power Inductors

**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 01/20

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