



## Features

- Semi-shielded construction
- High rated current
- Component height 4.5 mm
- Inductance range: 1 to 100  $\mu$ 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 |        | DCR ( $\Omega$ ) Max. | I <sub>rms</sub> (A) | I <sub>sat</sub> (A) |
|-----------------|--------------------------|--------|-----------------------|----------------------|----------------------|
|                 | L ( $\mu$ H)             | Tol. % |                       |                      |                      |
| SRN6045-1R0Y    | 1.0                      | 30     | 0.0139                | 4.2                  | 8.5                  |
| SRN6045-1R3Y    | 1.3                      | 30     | 0.017                 | 4.0                  | 8.0                  |
| SRN6045-1R8Y    | 1.8                      | 30     | 0.0198                | 3.7                  | 7.0                  |
| SRN6045-2R2Y    | 2.2                      | 30     | 0.0251                | 3.5                  | 6.0                  |
| SRN6045-3R3Y    | 3.3                      | 30     | 0.0302                | 3.2                  | 5.0                  |
| SRN6045-4R7Y    | 4.7                      | 30     | 0.0376                | 3.0                  | 4.0                  |
| SRN6045-6R8Y    | 6.8                      | 30     | 0.0473                | 2.8                  | 3.8                  |
| SRN6045-8R2Y    | 8.2                      | 30     | 0.055                 | 2.7                  | 3.3                  |
| SRN6045-100M    | 10                       | 20     | 0.0586                | 2.5                  | 3.0                  |
| SRN6045-150M    | 15                       | 20     | 0.0958                | 1.9                  | 2.3                  |
| SRN6045-220M    | 22                       | 20     | 0.142                 | 1.5                  | 1.9                  |
| SRN6045-330M    | 33                       | 20     | 0.188                 | 1.4                  | 1.5                  |
| SRN6045-470M    | 47                       | 20     | 0.257                 | 1.1                  | 1.3                  |
| SRN6045-680M    | 68                       | 20     | 0.351                 | 0.9                  | 1.0                  |
| SRN6045-101M    | 100                      | 20     | 0.494                 | 0.7                  | 0.8                  |

## General Specifications

Operating Temperature ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature .. -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>

## Materials

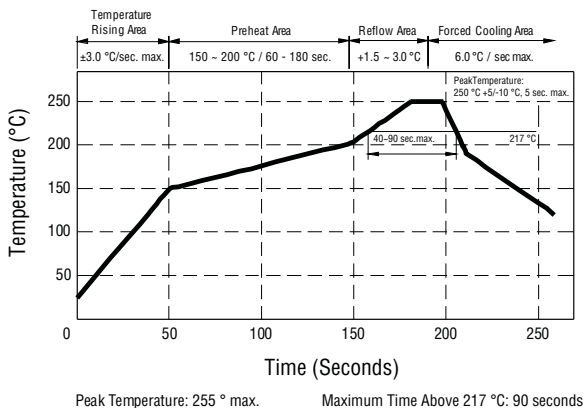
Core ..... Ferrite  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn  
 Coating ..... Magnetic epoxy resin  
 Packaging ..... 1000 pcs. per 13-inch reel

## How to Order

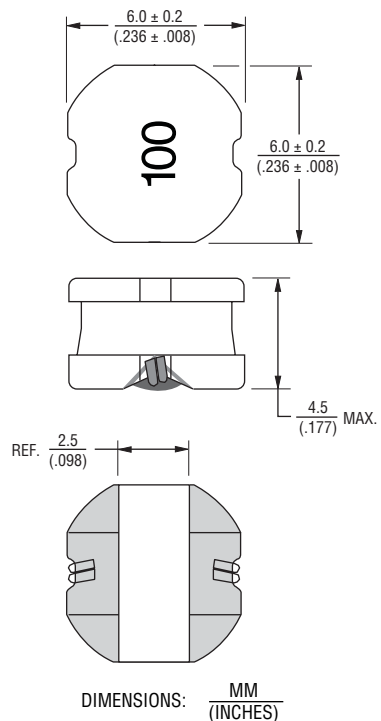
**SRN6045 - 100M**

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

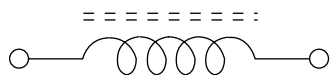
## Soldering Profile



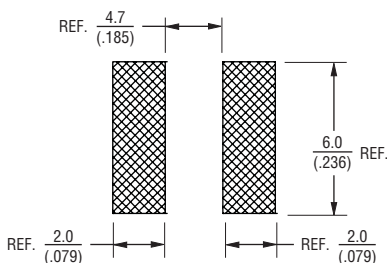
## Product Dimensions



## Electrical Schematic



## Recommended Layout



\* RoHS Directive 2002/95/EC Jan 27, 2003 including Annex.

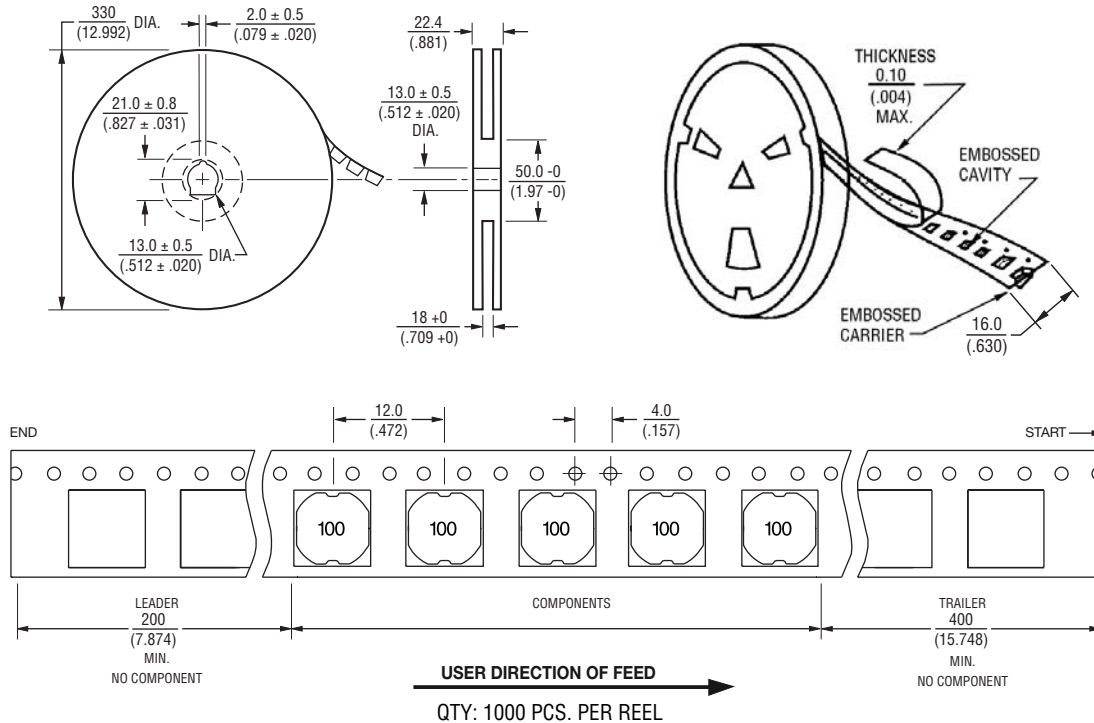
\*\* Bourns follows the prevailing definition of "halogen free" in the industry. Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications.

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**BOURNS®**

## Packaging Specifications



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

**BOURNS®**

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Europe: Tel: +41-41 768 5555 • Fax: +41-41 768 5510

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