



### Features

- Semi-shielded construction
- High rated current
- Component height: 4 mm
- Inductance range: 0.5 to 100  $\mu$ H
- Rated current up to 10 A
- RoHS compliant\* and halogen free\*\*

### Applications

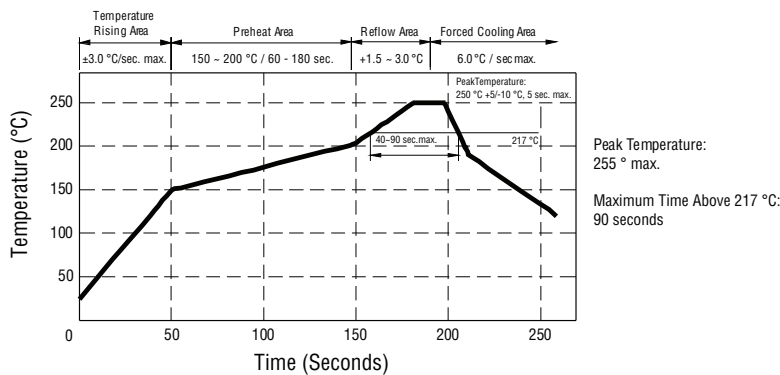
- DC/DC converters
- Notebook computers
- Digital video cameras
- HDDs
- Cell phones
- Televisions, LCD displays

## SRN8040 Series - Semi-shielded Power Inductors

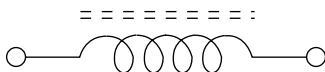
### Electrical Specifications @ 25 °C

| 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. % |          |                  |                |                       |                      |                      |
| SRN8040-R50Y    | 0.5                        | 30     | 13       | 7.96             | 125            | 0.007                 | 10                   | 12                   |
| SRN8040-1R0Y    | 1.0                        | 30     | 13       | 7.96             | 75             | 0.01                  | 7.8                  | 11                   |
| SRN8040-1R5Y    | 1.5                        | 30     | 13       | 7.96             | 55             | 0.011                 | 7                    | 8.2                  |
| SRN8040-2R2Y    | 2.2                        | 30     | 13       | 7.96             | 40             | 0.013                 | 6.3                  | 7.4                  |
| SRN8040-3R3Y    | 3.3                        | 30     | 13       | 7.96             | 34             | 0.021                 | 5.6                  | 5.5                  |
| SRN8040-3R6Y    | 3.6                        | 30     | 13       | 7.96             | 32             | 0.022                 | 4.9                  | 5.3                  |
| SRN8040-4R7Y    | 4.7                        | 30     | 13       | 7.96             | 28             | 0.024                 | 4.1                  | 4.7                  |
| SRN8040-6R8Y    | 6.8                        | 30     | 13       | 7.96             | 23             | 0.033                 | 3.9                  | 4.2                  |
| SRN8040-8R2Y    | 8.2                        | 30     | 13       | 7.96             | 20             | 0.045                 | 3.7                  | 4                    |
| SRN8040-100M    | 10                         | 20     | 20       | 2.52             | 18             | 0.05                  | 3.1                  | 3.4                  |
| SRN8040-150M    | 15                         | 20     | 15       | 2.52             | 14             | 0.07                  | 2.4                  | 2.7                  |
| SRN8040-220M    | 22                         | 20     | 20       | 2.52             | 12             | 0.1                   | 2.2                  | 2.2                  |
| SRN8040-330M    | 33                         | 20     | 20       | 2.52             | 10             | 0.145                 | 1.7                  | 1.9                  |
| SRN8040-470M    | 47                         | 20     | 15       | 2.52             | 9              | 0.19                  | 1.4                  | 1.5                  |
| SRN8040-680M    | 68                         | 20     | 20       | 2.52             | 7              | 0.275                 | 1.1                  | 1.2                  |
| SRN8040-101M    | 100                        | 20     | 10       | 0.796            | 6              | 0.4                   | 1                    | 1                    |

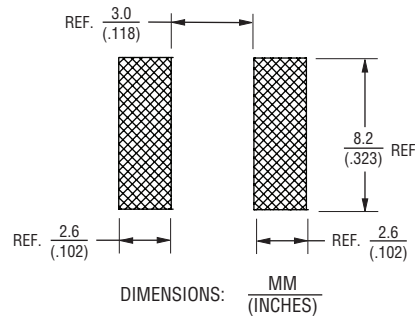
### Soldering Profile



### Electrical Schematic



### Recommended Layout



### 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>

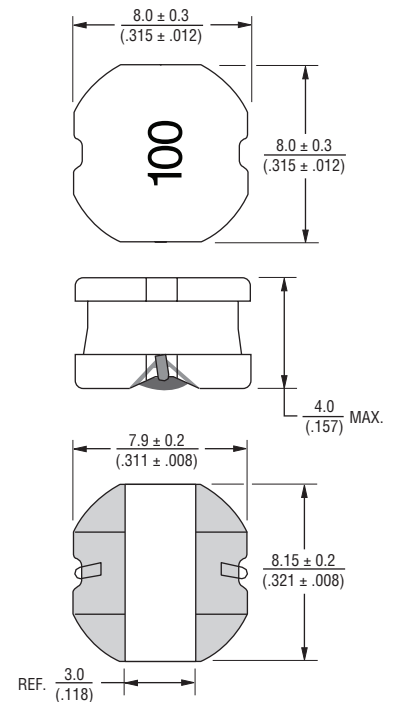
### Materials

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

### How to Order

Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_  
**SRN8040 - 100M**

### Product Dimensions



**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 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.

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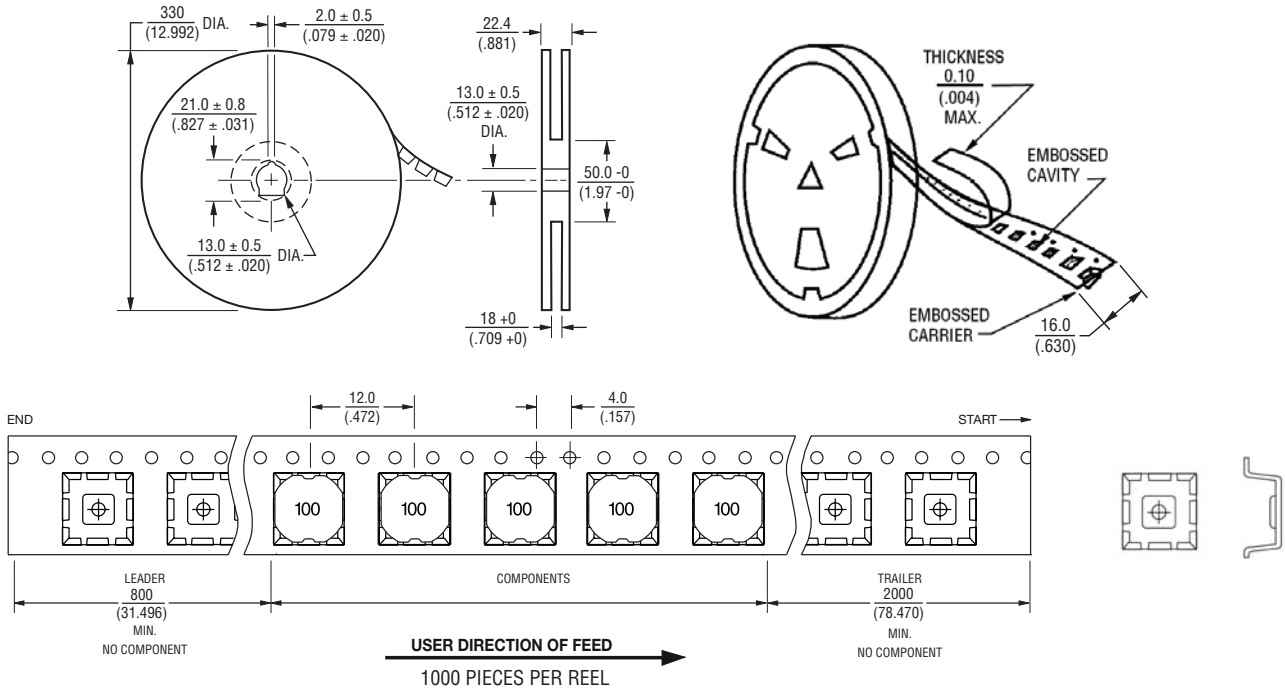
Users should verify actual device performance in their specific applications.

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# SRN8040 Series - Semi-shielded Power Inductors

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## Packaging Specifications



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

**BOURNS®**

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

REV. EFFECTIVE 02/17

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