



## Features

- Available in E6 series
- Unit height of 2.8 mm
- Current up to 3.5 A
- RoHS compliant\*

## Applications

- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

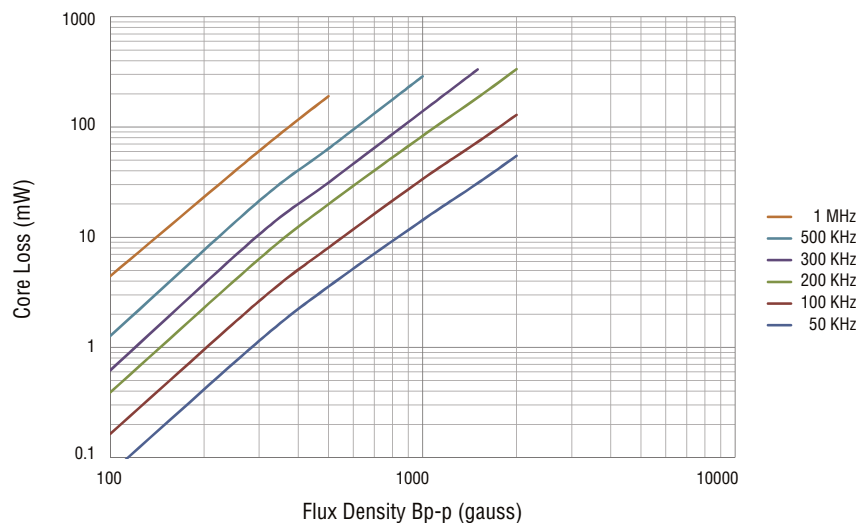
## SRU5028 Series - Shielded SMD Power Inductors

### Electrical Specifications

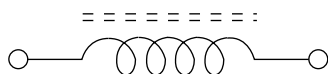
| Bourns Part Number | Inductance @ 100 KHz |          | Q Ref. | Test Freq. (MHz) | SRF Min. (MHz) | RDC (mΩ) | I rms Max. (A) | I sat Typ. (A) | **K-Factor |
|--------------------|----------------------|----------|--------|------------------|----------------|----------|----------------|----------------|------------|
|                    | L (μH)               | Tol. (%) |        |                  |                |          |                |                |            |
| SRU5028-1R2Y       | 1.2                  | ±30      | 10     | 7.96             | 200            | 16.8     | 3.50           | 3.40           | 453        |
| SRU5028-2R2Y       | 2.2                  | ±30      | 10     | 7.96             | 130            | 21.0     | 3.20           | 2.50           | 313        |
| SRU5028-3R3Y       | 3.3                  | ±30      | 10     | 7.96             | 90             | 24.0     | 2.80           | 2.10           | 272        |
| SRU5028-4R7Y       | 4.7                  | ±30      | 9      | 7.96             | 50             | 32.0     | 2.20           | 1.85           | 214        |
| SRU5028-6R8Y       | 6.8                  | ±30      | 10     | 7.96             | 55             | 42.0     | 2.00           | 1.55           | 177        |
| SRU5028-100Y       | 10.0                 | ±30      | 18     | 2.52             | 25             | 63.0     | 1.80           | 1.40           | 151        |
| SRU5028-150Y       | 15.0                 | ±30      | 18     | 2.52             | 23             | 108.0    | 1.10           | 1.00           | 123        |
| SRU5028-220Y       | 22.0                 | ±30      | 15     | 2.52             | 18             | 162.0    | 0.95           | 0.85           | 95         |
| SRU5028-330Y       | 33.0                 | ±30      | 15     | 2.52             | 16             | 203.0    | 0.80           | 0.68           | 87         |
| SRU5028-470Y       | 47.0                 | ±30      | 13     | 2.52             | 13             | 285.0    | 0.70           | 0.62           | 69         |
| SRU5028-680Y       | 68.0                 | ±30      | 13     | 2.52             | 10             | 450.0    | 0.56           | 0.46           | 59         |
| SRU5028-101Y       | 100.0                | ±30      | 15     | 0.796            | 8              | 625.0    | 0.47           | 0.42           | 50         |

\*\*K-Factor: To calculate core flux density, Bp-p (gauss) =  $K \times L(\mu H) \times \Delta I$  (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

### Core Loss vs. Flux Density

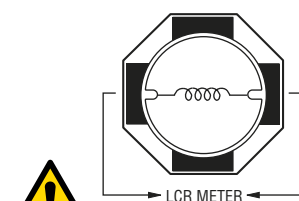


### Electrical Schematic



\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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### Inductor Connection



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

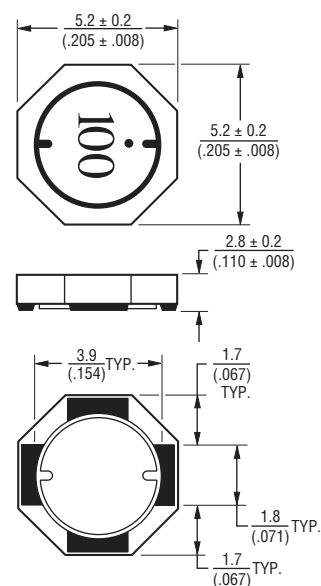
### General Specifications

Test Voltage ..... 0.1 V  
Reflow Soldering .. 230 °C, 50 sec. max.  
Operating Temp. .... -40 °C to +125 °C  
(Temperature rise included)  
Storage Temp. .... -40 °C to +125 °C  
Resistance to Soldering Heat  
..... 260 °C for 10 sec.  
Moisture Sensitivity Level ..... 1  
ESD Classification (HBM) ..... N/A

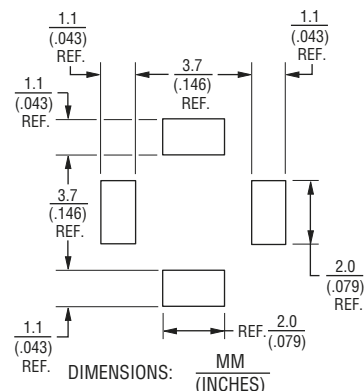
### Materials

Core ..... Ferrite DR and RI core  
Wire ..... Enameled copper  
Terminal ..... Ag/Ni/Sn  
Rated Current..Ind. drop 35 % typ. at Isat  
Temp. Rise..... 40 °C max. at rated Irms  
Packaging ..... 600 pcs. per reel

### Product Dimensions



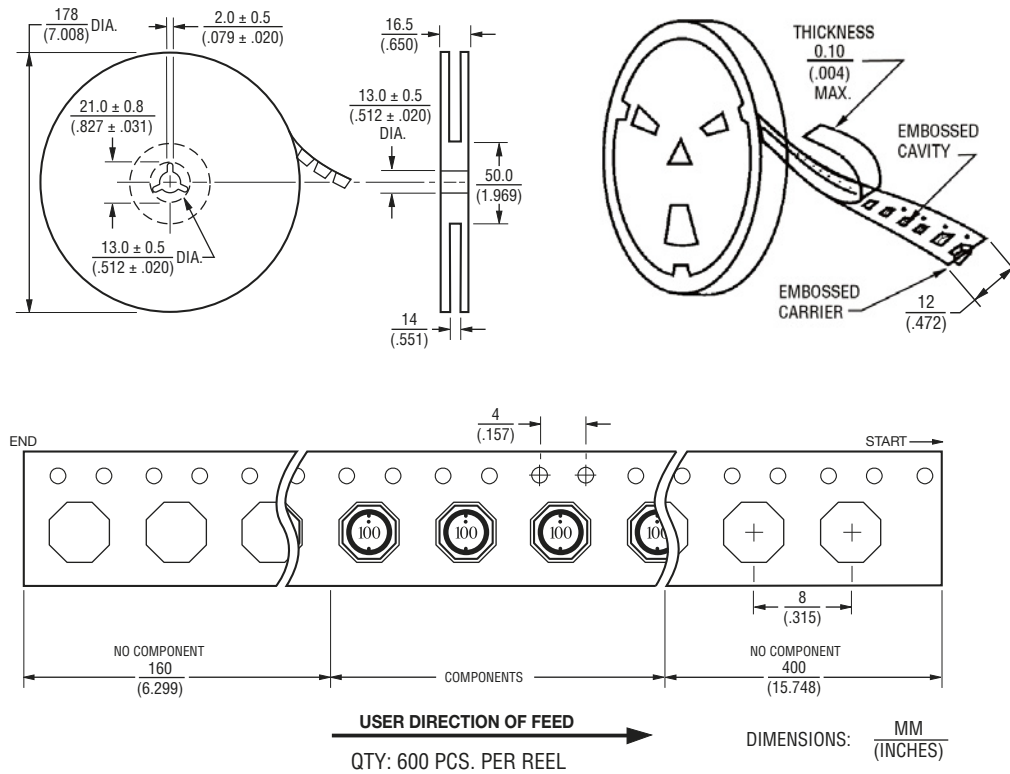
### Recommended Layout



# SRU5028 Series - Shielded SMD Power Inductors

**BOURNS®**

## Packaging Specifications



REV. 03/18

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Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)

[www.lifeelectronics.ru](http://www.lifeelectronics.ru)