



**THE DATASHEET OF  
SRU6011-4R7Y**





### Features

- Maximum height of 1.25 mm
- Current up to 2.6 A
- RoHS compliant\*



This series is currently available but not recommended for new designs.

## SRU6011 Series - Shielded SMD Power Inductors

### Electrical Specifications

| Bourns Part Number | Inductance @ 100 KHz |          | Q Ref. | Test Freq. (MHz) | SRF Typ. (MHz) | RDC Max. (mΩ) | I rms Max. (A) | I sat Typ. (A) | **K-Factor |
|--------------------|----------------------|----------|--------|------------------|----------------|---------------|----------------|----------------|------------|
|                    | L (μH)               | Tol. (%) |        |                  |                |               |                |                |            |
| SRU6011-1R4Y       | 1.4                  | ±30      | 8      | 7.96             | 140            | 40            | 2.60           | 1.80           | 707        |
| SRU6011-2R7Y       | 2.7                  | ±30      | 8      | 7.96             | 100            | 62            | 2.20           | 1.45           | 490        |
| SRU6011-4R7Y       | 4.7                  | ±30      | 8      | 7.96             | 70             | 86            | 1.80           | 1.10           | 374        |
| SRU6011-6R8Y       | 6.8                  | ±30      | 7      | 7.96             | 55             | 136           | 1.40           | 0.90           | 303        |
| SRU6011-100Y       | 10                   | ±30      | 12     | 2.52             | 45             | 220           | 1.10           | 0.72           | 236        |
| SRU6011-150Y       | 15                   | ±30      | 10     | 2.52             | 32             | 320           | 0.95           | 0.62           | 193        |
| SRU6011-220Y       | 22                   | ±30      | 10     | 2.52             | 26             | 390           | 0.80           | 0.48           | 163        |
| SRU6011-330Y       | 33                   | ±30      | 10     | 2.52             | 22             | 560           | 0.68           | 0.38           | 141        |
| SRU6011-470Y       | 47                   | ±30      | 10     | 2.52             | 20             | 850           | 0.55           | 0.32           | 112        |
| SRU6011-680Y       | 68                   | ±30      | 12     | 2.52             | 18             | 1200          | 0.46           | 0.28           | 92         |

\*\*K-Factor: To calculate core flux density,  $B_p$ -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.

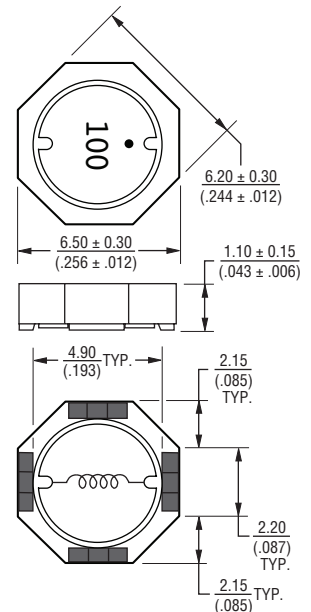
### General Specifications

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

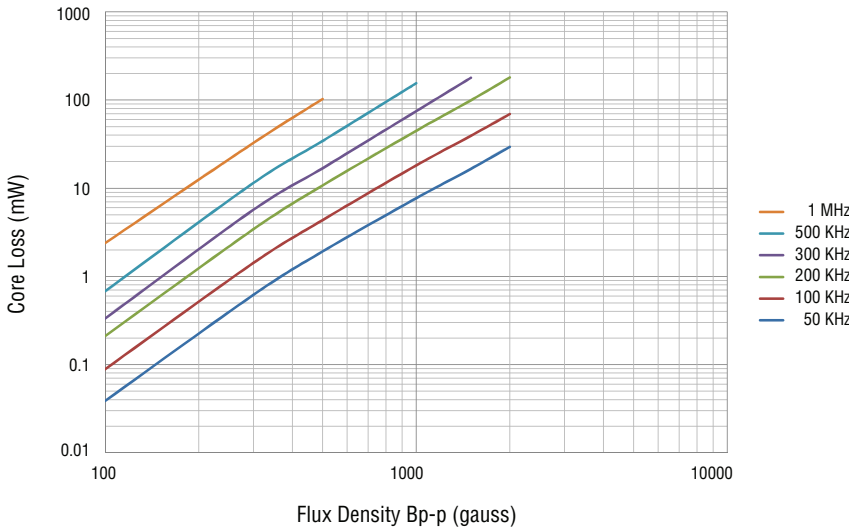
Core ..... Ferrite DR and RI core  
 Wire ..... Enameled copper  
 Terminal ..... Ag/Ni/Sn  
 Rated Current.. Ind. drop 35 % typ. at Isat  
 Temp. Rise..... 40 °C max. at rated I rms  
 Packaging ..... 1000 pcs. per reel

### Product Dimensions

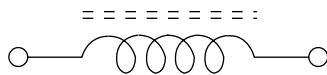


DIMENSIONS:  $\frac{MM}{(INCHES)}$

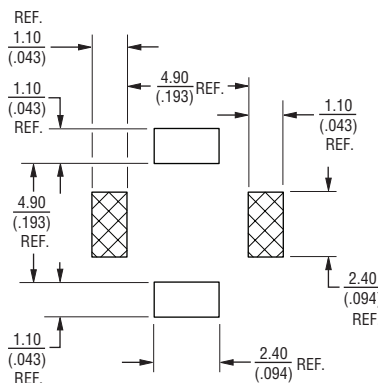
### Core Loss vs. Flux Density



### Electrical Schematic



### Recommended Layout



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

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

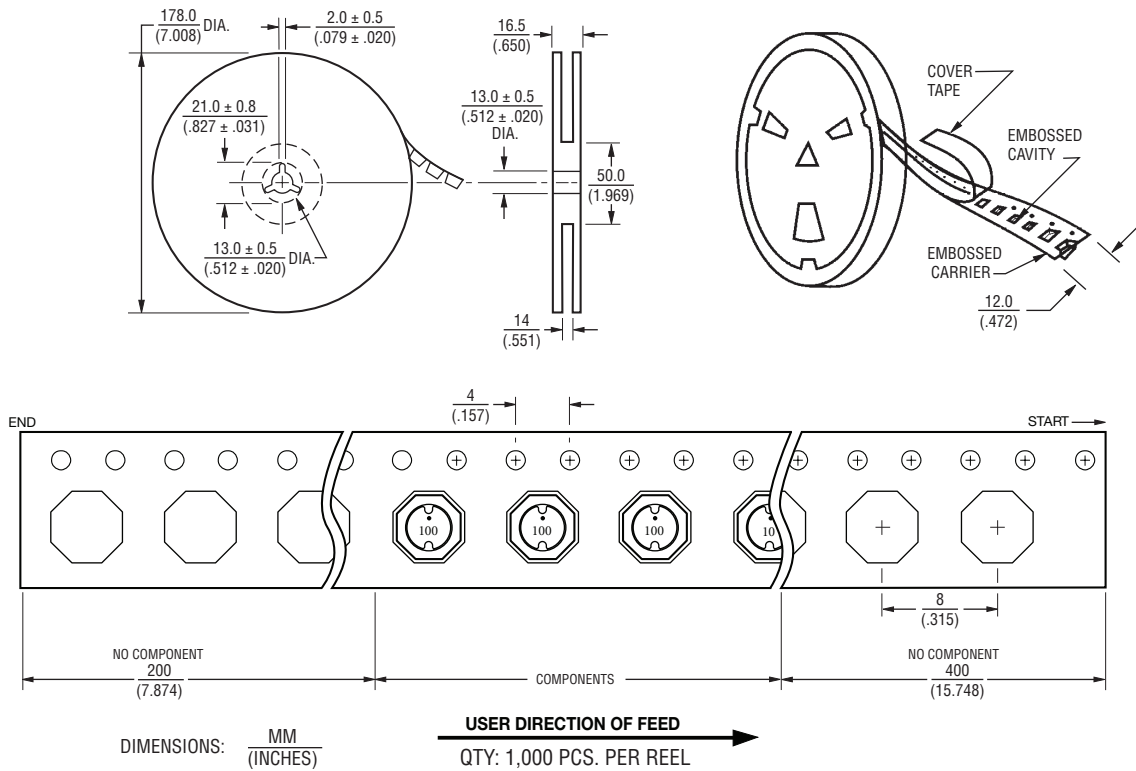
## Applications

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

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**BOURNS®**

### Packaging Specifications



REV. 09/23

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