



**THE DATASHEET OF
SRU5016-1R8Y**





Features

- Available in E6 series
- Unit height of 1.6 mm
- Current up to 1.8 A
- RoHS compliant*

Applications

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

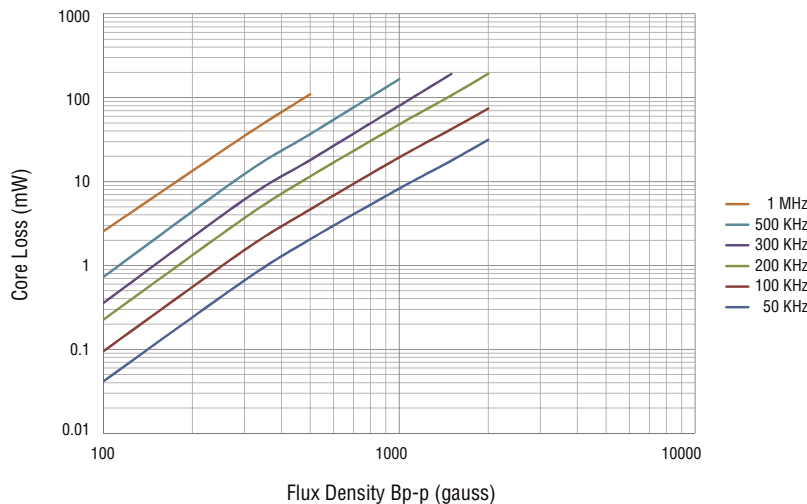
SRU5016 Series - Shielded SMD Power Inductors

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. (%) | | | | | | | |
| SRU5016-1R8Y | 1.8 | ±30 | 9 | 7.96 | 100 | 24 | 1.75 | 1.70 | 605 |
| SRU5016-3R3Y | 3.3 | ±30 | 9 | 7.96 | 80 | 35 | 1.55 | 1.50 | 462 |
| SRU5016-4R7Y | 4.7 | ±30 | 9 | 7.96 | 60 | 43 | 1.30 | 1.20 | 374 |
| SRU5016-6R8Y | 6.8 | ±30 | 8 | 7.96 | 50 | 50 | 1.20 | 1.10 | 314 |
| SRU5016-100Y | 10.0 | ±30 | 15 | 2.52 | 40 | 84 | 1.00 | 0.90 | 271 |
| SRU5016-150Y | 15.0 | ±30 | 15 | 2.52 | 32 | 130 | 0.80 | 0.72 | 225 |
| SRU5016-220Y | 22.0 | ±30 | 15 | 2.52 | 28 | 195 | 0.65 | 0.56 | 192 |
| SRU5016-330Y | 33.0 | ±30 | 13 | 2.52 | 22 | 300 | 0.54 | 0.50 | 148 |
| SRU5016-470Y | 47.0 | ±30 | 18 | 2.52 | 18 | 390 | 0.46 | 0.42 | 125 |
| SRU5016-680Y | 68.0 | ±30 | 18 | 2.52 | 15 | 560 | 0.36 | 0.33 | 108 |
| SRU5016-101Y | 100.0 | ±30 | 18 | 0.796 | 12 | 850 | 0.30 | 0.27 | 83 |

**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.

Core Loss vs. Flux Density



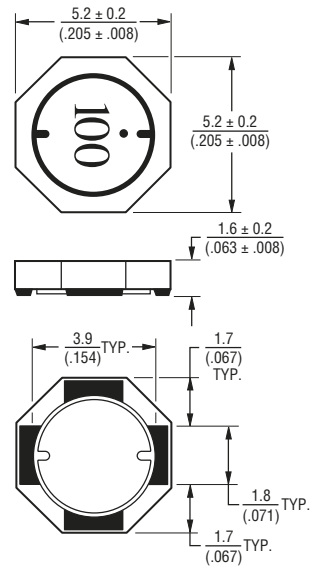
General Specifications

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

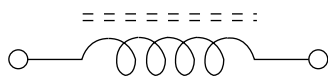
Materials

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

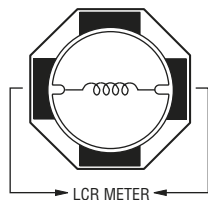
Product Dimensions



Electrical Schematic



Inductor Connection

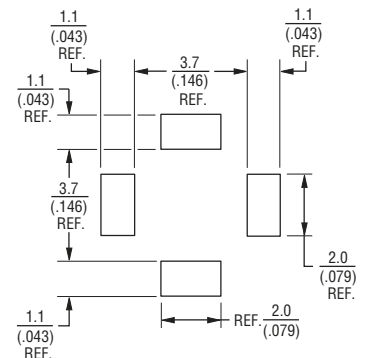


DIMENSIONS: MM (INCHES)



WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Recommended Layout

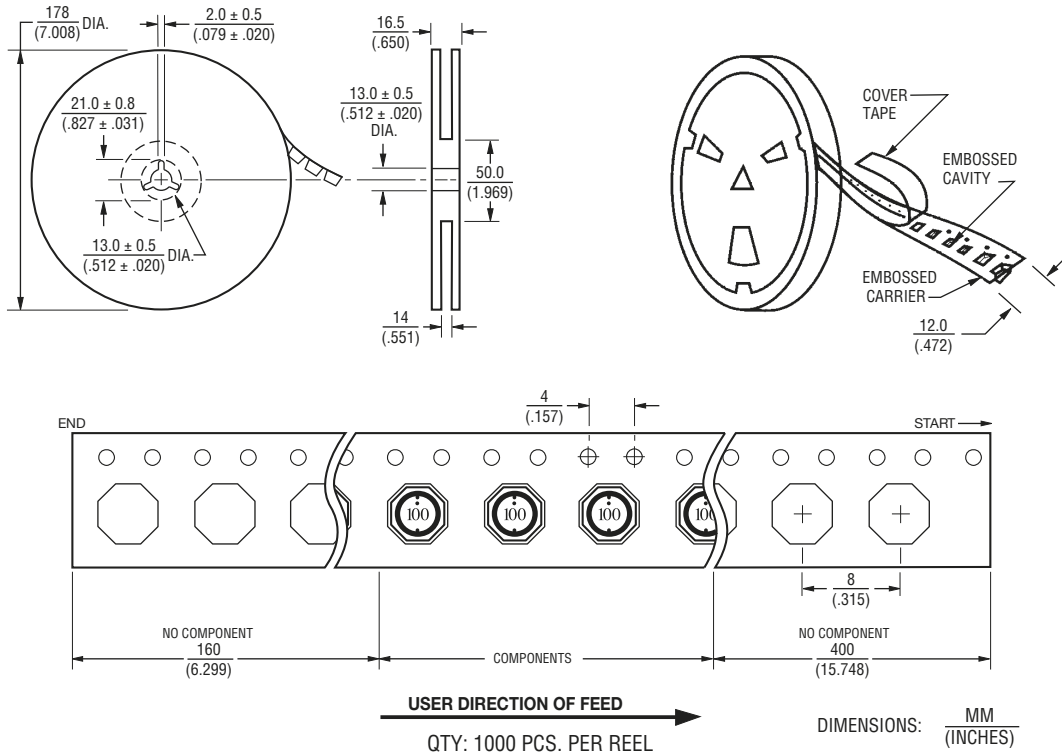


* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
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SRU5016 Series - Shielded SMD Power Inductors

BOURNS®

Packaging Specifications



REV. 03/18

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