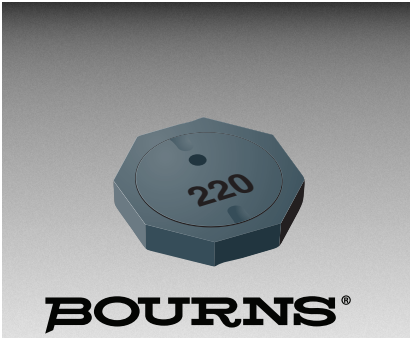




**THE DATASHEET OF
SRU5011-680Y**





Features

- Available in E6 series
- Unit height of 1.1 mm
- Current up to 1800 mA
- RoHS compliant*



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

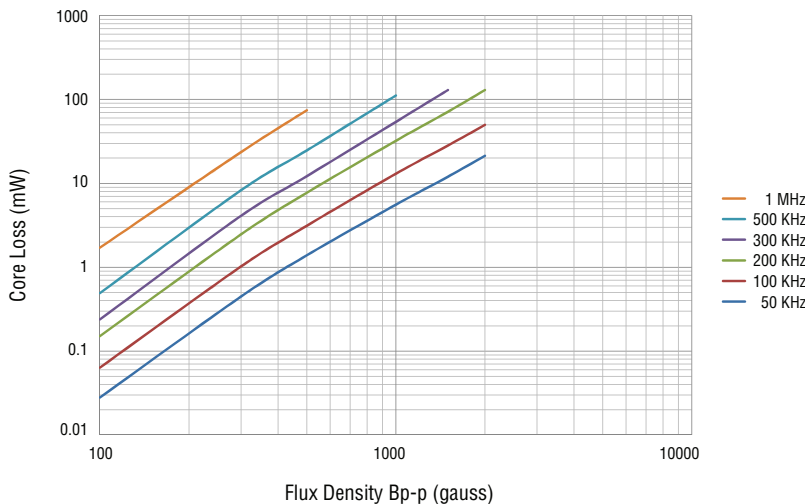
SRU5011 Series - Shielded SMD Power Inductors

Electrical Specifications

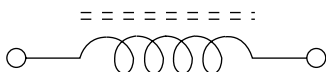
| Bourns Part Number | Inductance @ 100 KHz | | Q Ref. | Test Freq. (MHz) | SRF Min. (MHz) | RDC (.mΩ) | I rms Max. (A) | I sat Typ. (A) | **K-Factor |
|--------------------|----------------------|----------|--------|------------------|----------------|-----------|----------------|----------------|------------|
| | L (μH) | Tol. (%) | | | | | | | |
| SRU5011-1R5Y | 1.5 | ±30 | 8 | 7.96 | 195.0 | 32 | 1.80 | 1.50 | 904 |
| SRU5011-2R5Y | 2.5 | ±30 | 8 | 7.96 | 125.0 | 52 | 1.30 | 1.10 | 765 |
| SRU5011-3R3Y | 3.3 | ±30 | 8 | 7.96 | 110.0 | 66 | 1.15 | 0.94 | 585 |
| SRU5011-4R7Y | 4.7 | ±30 | 8 | 7.96 | 85.0 | 95 | 1.00 | 0.82 | 524 |
| SRU5011-6R8Y | 6.8 | ±30 | 8 | 7.96 | 70.0 | 130 | 0.82 | 0.68 | 398 |
| SRU5011-100Y | 10.0 | ±30 | 12 | 7.96 | 50.0 | 170 | 0.70 | 0.58 | 368 |
| SRU5011-150Y | 15.0 | ±30 | 12 | 2.52 | 42.0 | 250 | 0.60 | 0.48 | 284 |
| SRU5011-220Y | 22.0 | ±30 | 14 | 2.52 | 38.0 | 380 | 0.50 | 0.40 | 231 |
| SRU5011-330Y | 33.0 | ±30 | 14 | 2.52 | 30.0 | 550 | 0.38 | 0.30 | 188 |
| SRU5011-470Y | 47.0 | ±30 | 16 | 2.52 | 25.0 | 800 | 0.32 | 0.26 | 163 |
| SRU5011-680Y | 68.0 | ±30 | 14 | 2.52 | 20.0 | 1240 | 0.26 | 0.22 | 136 |
| SRU5011-101Y | 100.0 | ±30 | 30 | 0.796 | 15.0 | 1600 | 0.20 | 0.18 | 112 |

**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.

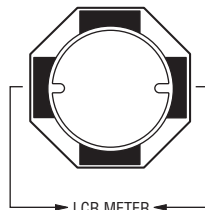
Core Loss vs. Flux Density



Electrical Schematic



Inductor Connection



*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.



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

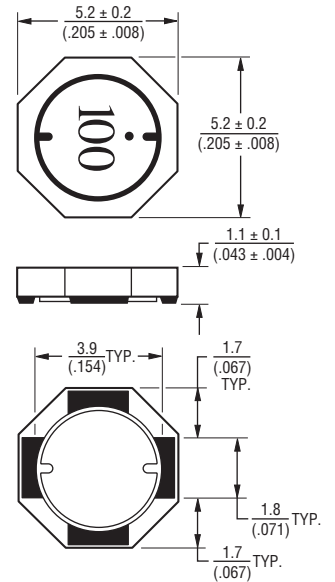
General Specifications

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

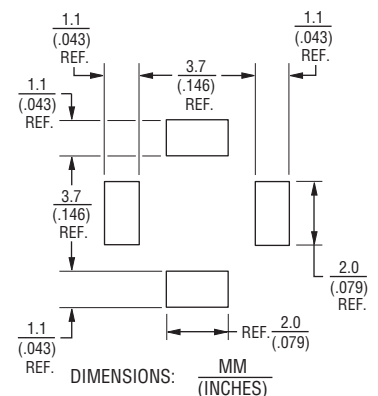
Materials

Core Ferrite DR and RI
 Wire Enameled copper
 Terminal Ag/Ni/Sn
 Rated Current.. Ind. drop 35 % typ. at Isat
 Temp. Rise..... 25 °C max. at rated I rms
 Packaging 1500 pcs. per reel

Product Dimensions



Recommended Layout



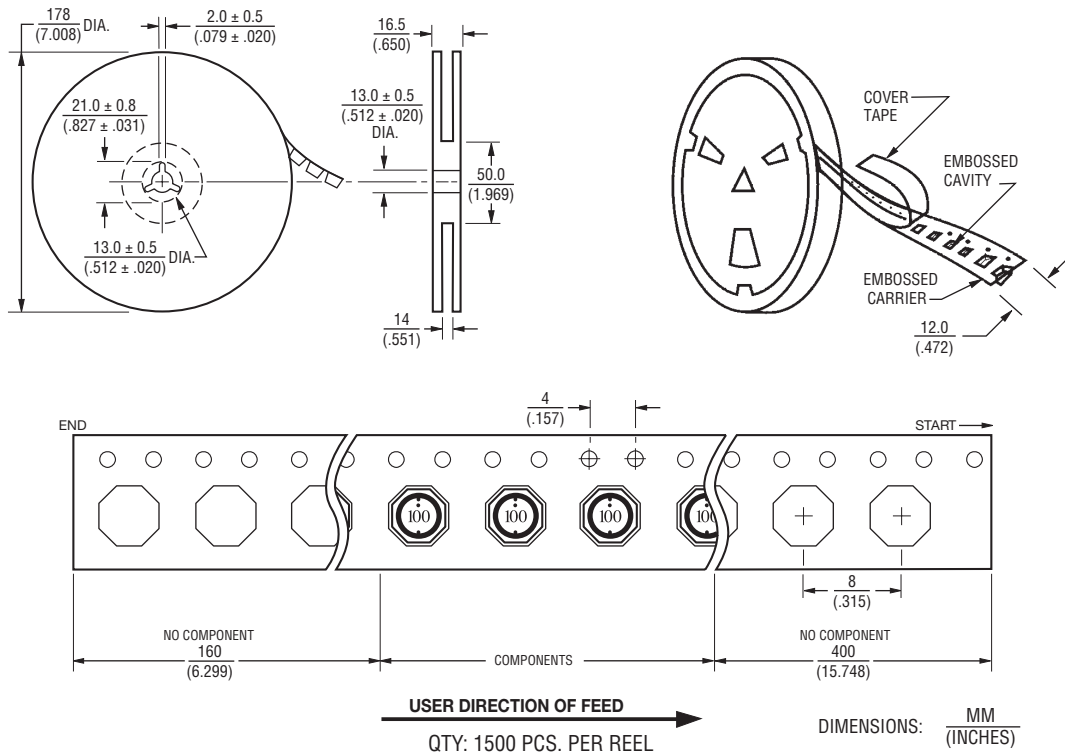
Applications

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

SRU5011 Series - Shielded SMD Power Inductors

BOURNS®

Packaging Specifications



REV. 09/23

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.

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