



**THE DATASHEET OF
SRU1028-121Y**





Features

- Available in E6 series
- Unit height of 2.8 mm
- Current up to 7 A
- RoHS compliant*

Applications

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

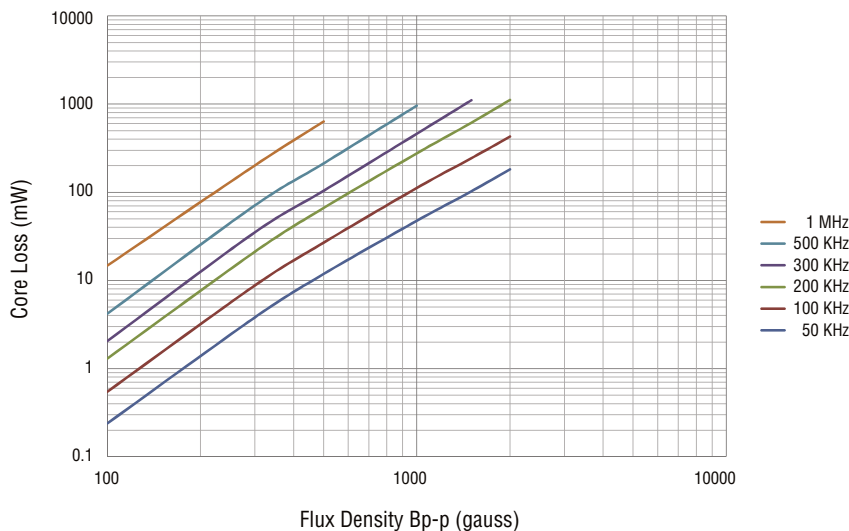
SRU1028 Series - Shielded SMD Power Inductors

Electrical Specifications @ 25 °C

| 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. (%) | | | | | | | |
| SRU1028-1R0Y | 1.0 | ±30 | 14 | 7.96 | 100.0 | 4.9 | 7.00 | 8.00 | 315 |
| SRU1028-1R5Y | 1.5 | ±30 | 12 | 7.96 | 80.0 | 7.3 | 6.50 | 6.50 | 245 |
| SRU1028-2R2Y | 2.2 | ±30 | 12 | 7.96 | 65.0 | 11 | 5.30 | 4.80 | 200 |
| SRU1028-3R3Y | 3.3 | ±30 | 14 | 7.96 | 55.0 | 15 | 4.60 | 4.30 | 169 |
| SRU1028-4R7Y | 4.7 | ±30 | 12 | 7.96 | 40.0 | 16 | 4.50 | 3.80 | 147 |
| SRU1028-6R8Y | 6.8 | ±30 | 12 | 7.96 | 30.0 | 15 | 3.50 | 3.00 | 130 |
| SRU1028-8R2Y | 8.2 | ±30 | 12 | 7.96 | 28.0 | 28 | 3.30 | 2.70 | 116 |
| SRU1028-100Y | 10.0 | ±30 | 20 | 7.96 | 25.0 | 40 | 2.80 | 2.40 | 105 |
| SRU1028-120Y | 12.0 | ±30 | 22 | 2.52 | 23.0 | 70 | 2.40 | 2.30 | 93 |
| SRU1028-150Y | 15.0 | ±30 | 26 | 2.52 | 22.0 | 69 | 2.00 | 2.00 | 82 |
| SRU1028-220Y | 22.0 | ±30 | 26 | 2.52 | 16.0 | 104 | 1.60 | 1.40 | 71 |
| SRU1028-330Y | 33.0 | ±30 | 24 | 2.52 | 12.0 | 139 | 1.25 | 1.20 | 60 |
| SRU1028-470Y | 47.0 | ±30 | 20 | 2.52 | 11.0 | 167 | 1.30 | 1.10 | 49 |
| SRU1028-560Y | 56.0 | ±30 | 22 | 2.52 | 10.0 | 208 | 1.10 | 1.00 | 43 |
| SRU1028-680Y | 68.0 | ±30 | 20 | 2.52 | 9.0 | 232 | 1.00 | 0.90 | 39 |
| SRU1028-820Y | 82.0 | ±30 | 20 | 2.52 | 8.0 | 323 | 0.90 | 0.85 | 36 |
| SRU1028-101Y | 100.0 | ±30 | 20 | 0.796 | 7.0 | 365 | 0.85 | 0.80 | 33 |
| SRU1028-121Y | 120.0 | ±30 | 18 | 0.796 | 6.0 | 428 | 0.65 | 0.70 | 31 |
| SRU1028-151Y | 150.0 | ±30 | 18 | 0.796 | 5.0 | 518 | 0.70 | 0.65 | 27 |

**K-Factor: To calculate core flux density, Bp-p (gauss) = K x L(μH) x Δ I (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

Core Loss vs. Flux Density



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

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf

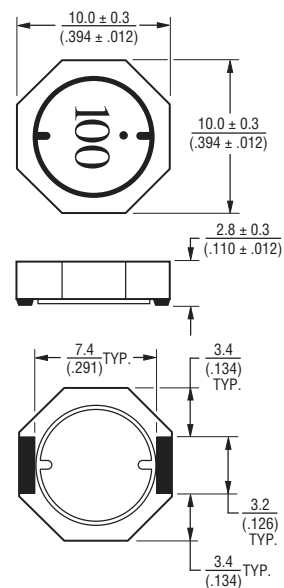
General Specifications

Test Voltage 1 V
 Reflow Soldering .. 230 °C, 50 sec. max.
 Operating Temperature -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

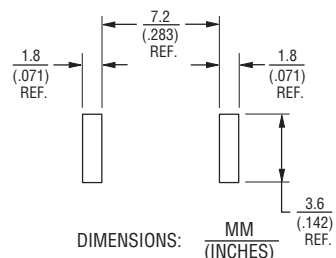
Materials

Core Ferrite DR and RI core
 Wire Enameled 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



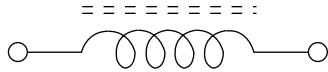
Recommended Layout



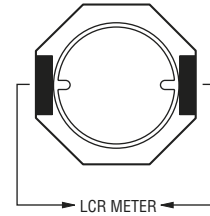
SRU1028 Series - Shielded SMD Power Inductors

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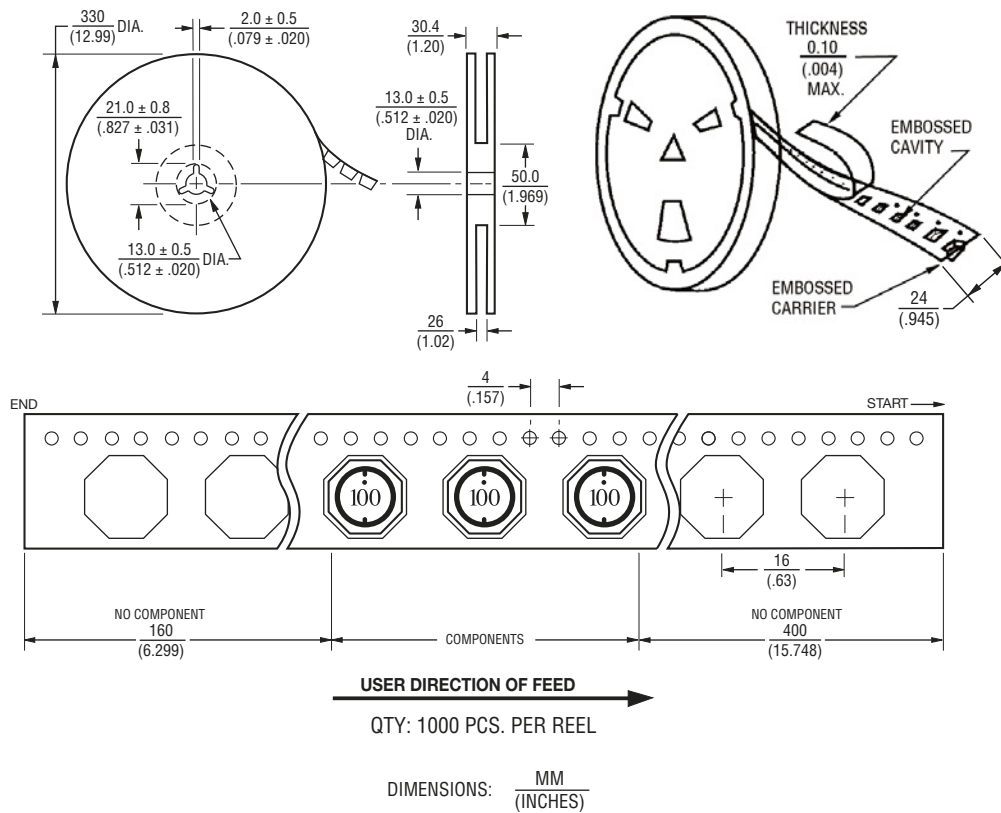
Electrical Schematic



Inductor Connection



Packaging Specifications



REV. 03/18

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