



**THE DATASHEET OF
SRU6018-100Y**





Features

- Maximum height of 2.0 mm
- Current up to 3.6 A
- RoHS compliant*

Applications

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

SRU6018 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. (%) | | | | | | | |
| SRU6018-1R2Y | 1.2 | ±30 | 8 | 7.96 | 130 | 25 | 3.60 | 2.80 | 707 |
| SRU6018-1R8Y | 1.8 | ±30 | 8 | 7.96 | 90 | 28 | 3.00 | 2.30 | 579 |
| SRU6018-3R3Y | 3.3 | ±30 | 8 | 7.96 | 60 | 36 | 2.50 | 1.70 | 424 |
| SRU6018-4R7Y | 4.7 | ±30 | 8 | 7.96 | 50 | 52 | 2.20 | 1.40 | 374 |
| SRU6018-6R8Y | 6.8 | ±30 | 8 | 7.96 | 40 | 60 | 1.90 | 1.20 | 303 |
| SRU6018-100Y | 10 | ±30 | 12 | 2.52 | 30 | 88 | 1.70 | 1.00 | 236 |
| SRU6018-150Y | 15 | ±30 | 12 | 2.52 | 24 | 130 | 1.50 | 0.80 | 193 |
| SRU6018-220Y | 22 | ±30 | 14 | 2.52 | 18 | 190 | 1.20 | 0.65 | 163 |
| SRU6018-330Y | 33 | ±30 | 10 | 2.52 | 16 | 255 | 1.00 | 0.58 | 130 |
| SRU6018-470Y | 47 | ±30 | 12 | 2.52 | 14 | 410 | 0.80 | 0.46 | 108 |
| SRU6018-680Y | 68 | ±30 | 12 | 2.52 | 12 | 600 | 0.62 | 0.36 | 90 |
| SRU6018-101Y | 100 | ±30 | 20 | 2.52 | 9 | 715 | 0.50 | 0.34 | 77 |

**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.

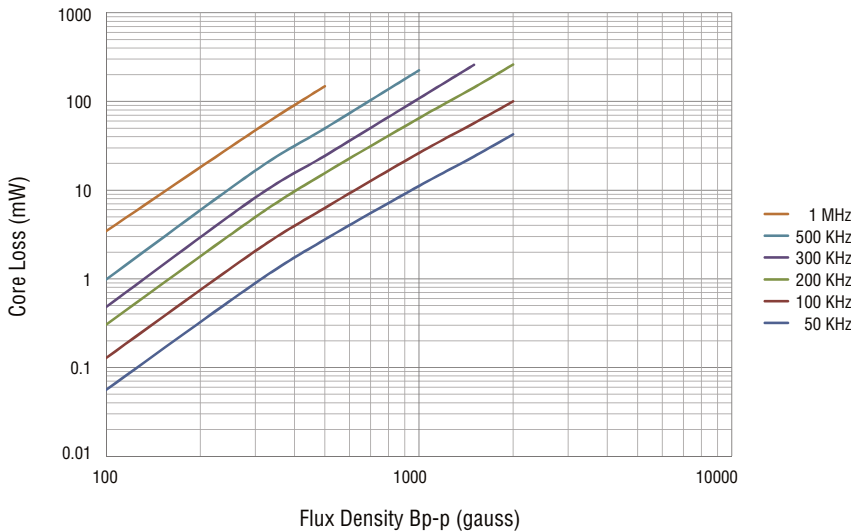
General Specifications

Test Voltage0.1 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

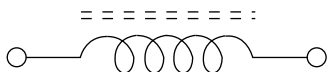
Materials

Core.....Ferrite DR and RI core
 WireEnamelled copper
 TerminalAg/Ni/Sn
 Rated Current..Ind. drop 35 % typ. at Isat
 Temp. Rise.....30 °C max. at rated Irms
 Packaging..... 800 pcs. per reel

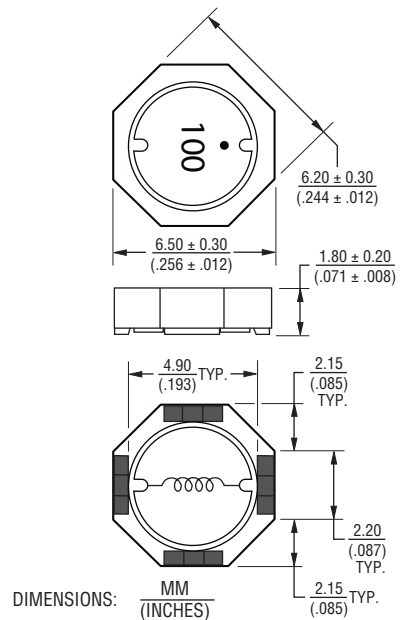
Core Loss vs. Flux Density



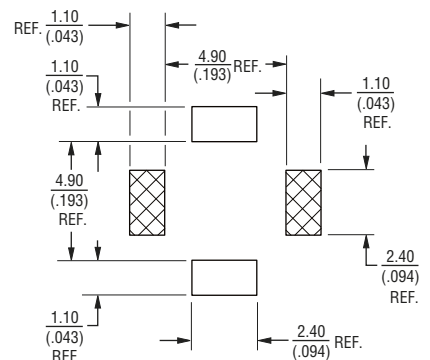
Electrical Schematic



Product Dimensions



Recommended Layout



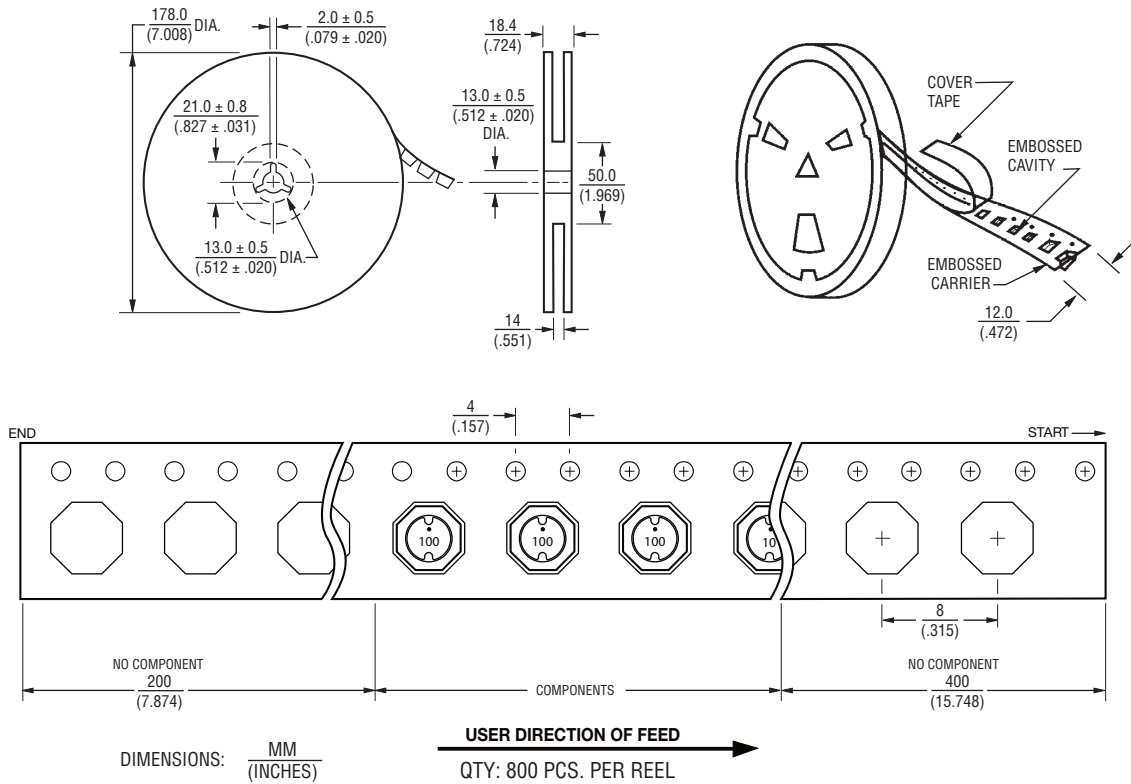
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*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

SRU6018 Series - Shielded SMD Power Inductors

BOURNS®

Packaging Specifications



REV. 03/18

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