



**THE DATASHEET OF
SRU8043-120Y**





Features

- Available in E6 series
- Unit height of 4.3 mm
- Current up to 5.4 A
- RoHS compliant*

Applications

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

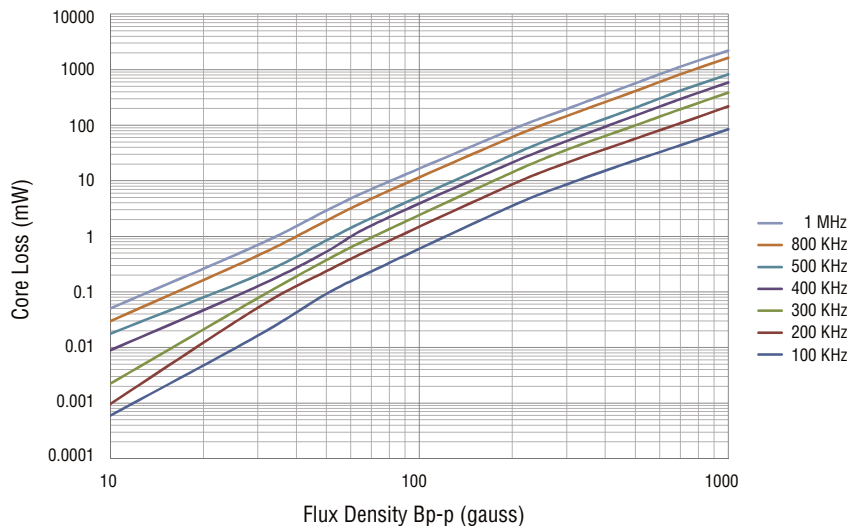
SRU8043 Series - Shielded SMD Power Inductors

Electrical Specifications

| Bourns Part No. | Inductance 100 KHz | | Q Ref. | Test Freq. (MHz) | SRF Min. (MHz) | RDC (mΩ) | I _{rms} Max. (A) | I _{sat} Typ. (A) | **K-Factor |
|-----------------|--------------------|--------|--------|------------------|----------------|----------|---------------------------|---------------------------|------------|
| | (μH) | Tol. % | | | | | | | |
| SRU8043-2R2Y | 2.2 | ± 30 | 15 | 7.96 | 65.0 | 11.2 | 5.40 | 5.20 | 250 |
| SRU8043-3R9Y | 3.9 | ± 30 | 15 | 7.96 | 42.0 | 14.6 | 4.80 | 4.00 | 191 |
| SRU8043-4R7Y | 4.7 | ± 30 | 13 | 7.96 | 36.0 | 17.0 | 4.60 | 3.60 | 171 |
| SRU8043-6R8Y | 6.8 | ± 30 | 12 | 7.96 | 30.0 | 22.4 | 3.80 | 3.10 | 141 |
| SRU8043-100Y | 10 | ± 30 | 27 | 2.52 | 20.0 | 30.0 | 3.50 | 2.70 | 120 |
| SRU8043-120Y | 12 | ± 30 | 15 | 2.52 | 15.0 | 39.0 | 2.80 | 2.20 | 110 |
| SRU8043-150Y | 15 | ± 30 | 26 | 2.52 | 15.0 | 46.0 | 2.70 | 2.00 | 98 |
| SRU8043-180Y | 18 | ± 30 | 15 | 2.52 | 15.0 | 62.0 | 2.30 | 1.70 | 87 |
| SRU8043-220Y | 22 | ± 30 | 24 | 2.52 | 12.0 | 72.5 | 2.20 | 1.70 | 79 |
| SRU8043-270Y | 27 | ± 30 | 17 | 2.52 | 12.0 | 84.0 | 1.80 | 1.55 | 73 |
| SRU8043-330Y | 33 | ± 30 | 21 | 2.52 | 11.0 | 100.0 | 1.70 | 1.40 | 66 |
| SRU8043-470Y | 47 | ± 30 | 21 | 2.52 | 9.0 | 120.0 | 1.50 | 1.20 | 55 |
| SRU8043-680Y | 68 | ± 30 | 20 | 2.52 | 7.0 | 192.0 | 1.20 | 1.00 | 44 |
| SRU8043-101Y | 100 | ± 30 | 50 | 0.796 | 6.0 | 287.0 | 1.00 | 0.80 | 38 |

**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



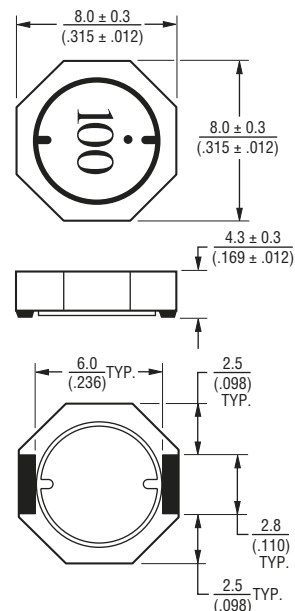
General Specifications

Test Voltage 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

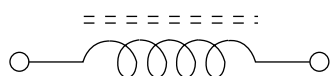
Materials

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

Product Dimensions



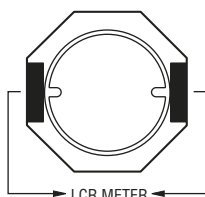
Electrical Schematic



* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

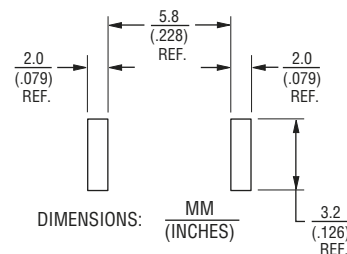
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Inductor Connection



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

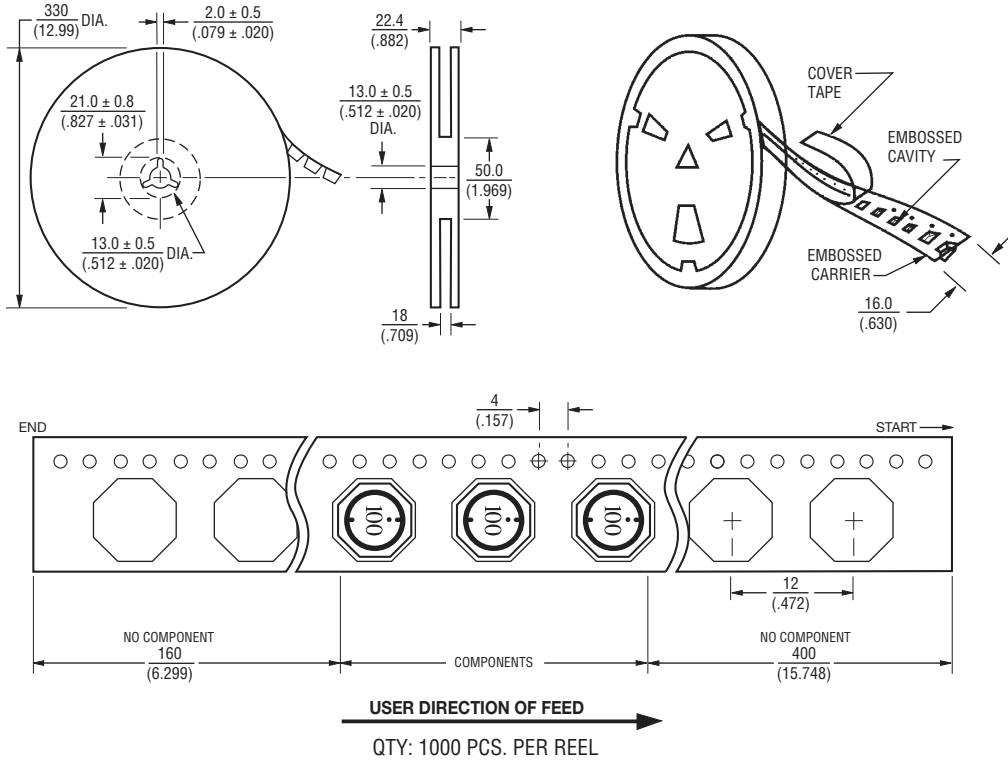
Recommended Layout



SRU8043 Series - Shielded SMD Power Inductors

BOURNS®

Packaging Specifications



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

REV. 03/18

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