



## 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

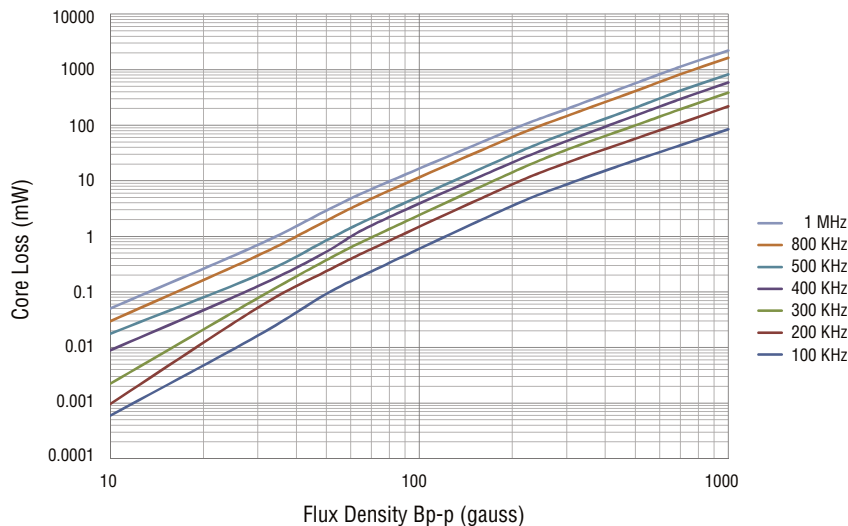
# SRU8043 Series - Shielded SMD Power Inductors

## Electrical Specifications

| Bourns Part No. | Inductance 100 KHz |        | Q Ref. | Test Freq. (MHz) | SRF Min. (MHz) | RDC (mΩ) | I <sub>rms</sub> Max. (A) | I <sub>sat</sub> 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



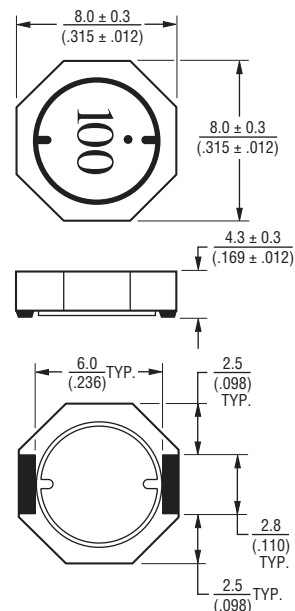
## General Specifications

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

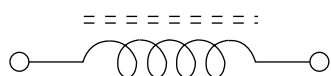
## Materials

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

## Product Dimensions



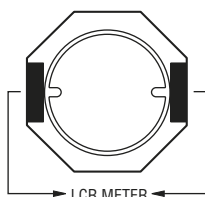
## Electrical Schematic



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

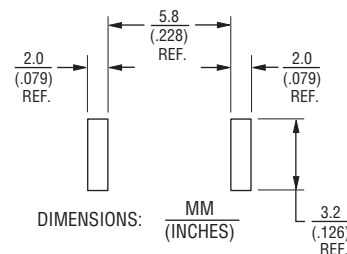
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## Inductor Connection



**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

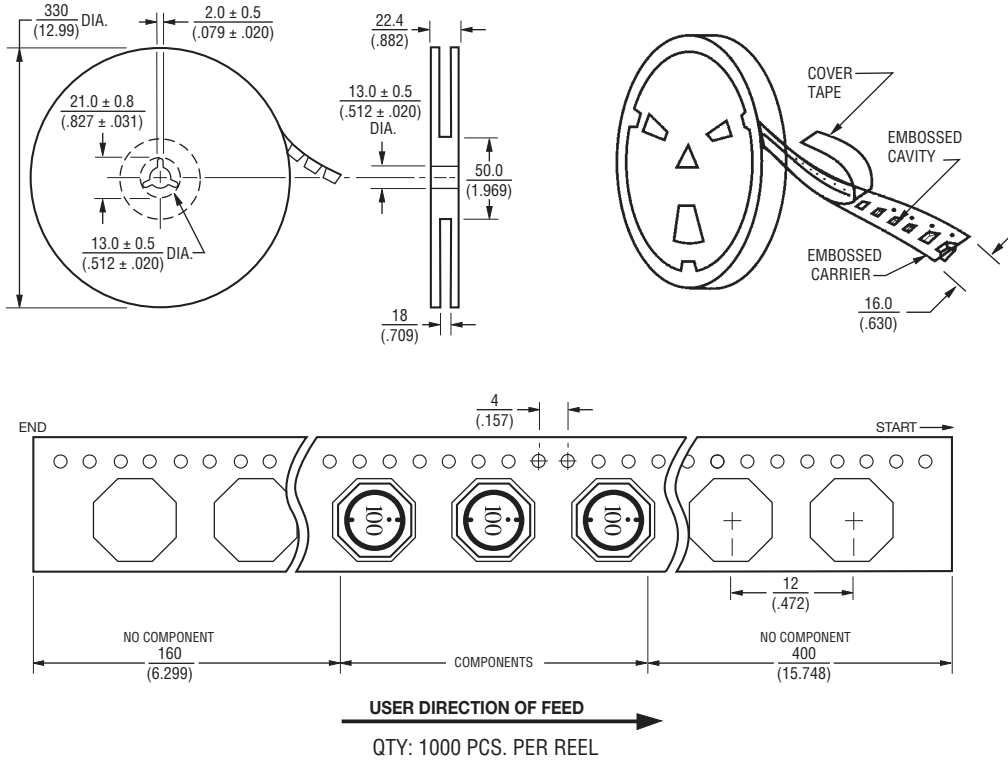
## Recommended Layout



# SRU8043 Series - Shielded SMD Power Inductors

**BOURNS®**

## Packaging Specifications



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

REV. 03/18

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Users should verify actual device performance in their specific applications.

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