



**THE DATASHEET OF  
SRU8043-100Y**





## 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

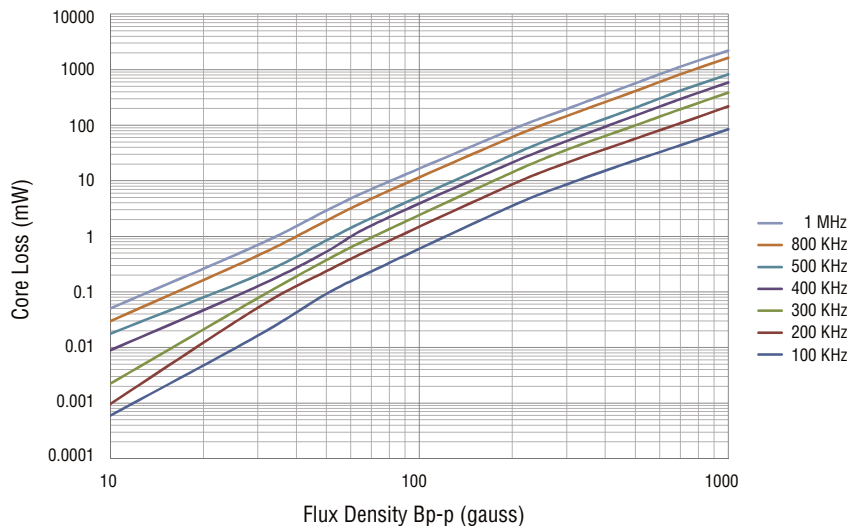
# SRU8043 Series - Shielded SMD Power Inductors

## 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



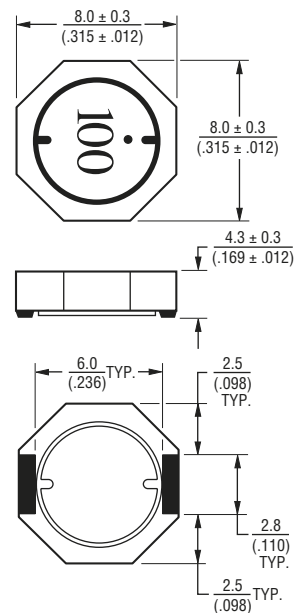
## General Specifications

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

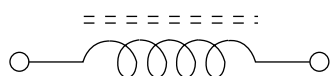
## Materials

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



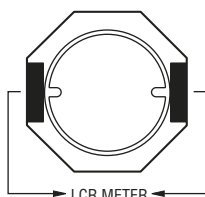
## Electrical Schematic



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

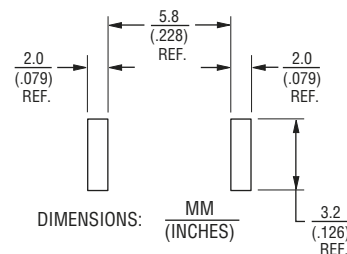
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## Inductor Connection



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

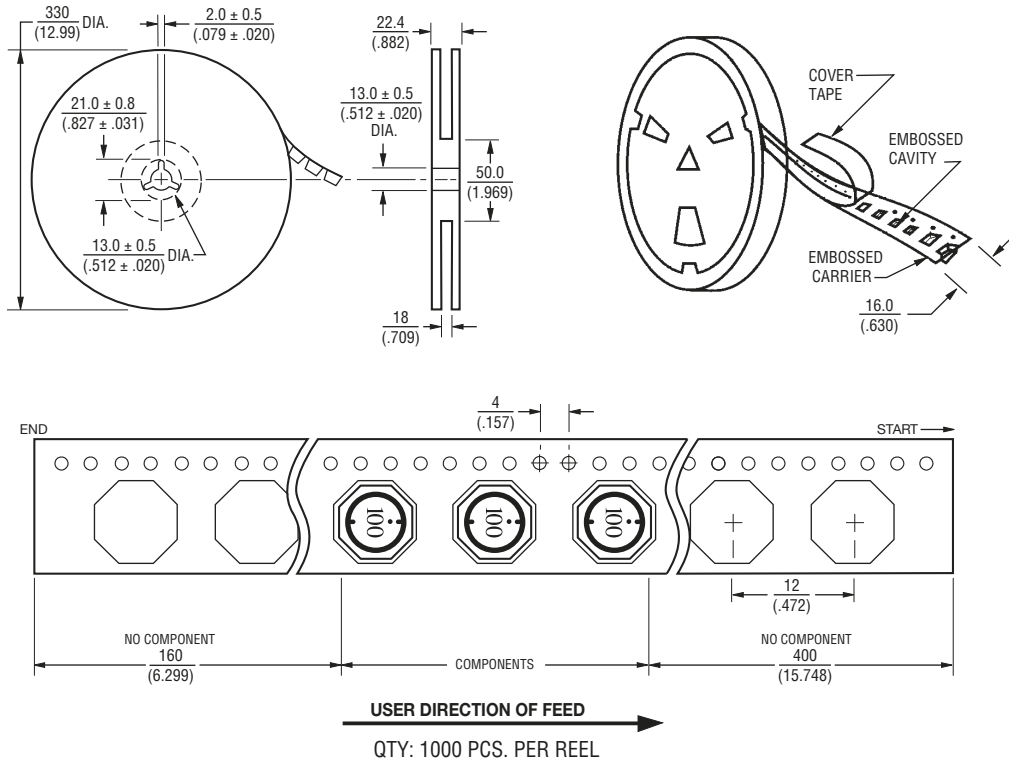
## Recommended Layout



# 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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