



## Features

- Maximum height of 1.60 mm
- Current up to 3.2 A
- RoHS compliant\*

## Applications

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

# SRU6013 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. (%)							
SRU6013-1R0Y	1.0	±30	12	7.96	100	36	3.20	2.90	453
SRU6013-1R5Y	1.5	±30	10	7.96	90	40	3.00	2.40	370
SRU6013-2R2Y	2.2	±30	10	7.96	80	50	2.50	2.10	313
SRU6013-3R3Y	3.3	±30	10	7.96	70	60	2.35	1.75	272
SRU6013-4R2Y	4.2	±30	10	7.96	55	75	2.10	1.50	214
SRU6013-6R4Y	6.4	±30	10	7.96	45	110	1.70	1.30	177
SRU6013-100Y	10	±30	14	2.52	35	165	1.40	1.00	151
SRU6013-150Y	15	±30	12	2.52	26	235	1.10	0.80	116
SRU6013-220Y	22	±30	12	2.52	22	325	0.95	0.72	99
SRU6013-330Y	33	±30	10	2.52	18	500	0.78	0.58	77
SRU6013-470Y	47	±30	10	2.52	14	675	0.66	0.50	65
SRU6013-680Y	68	±30	10	2.52	10	900	0.60	0.40	57

\*\*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.

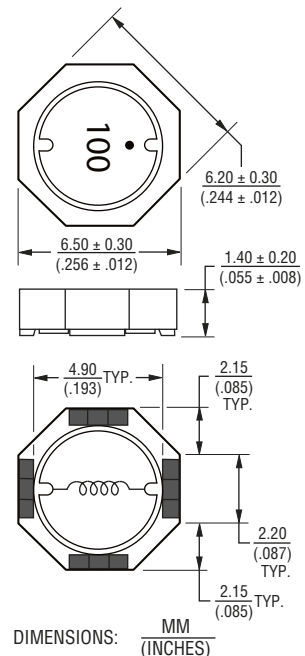
## General Specifications

Test Voltage ..... 0.1 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

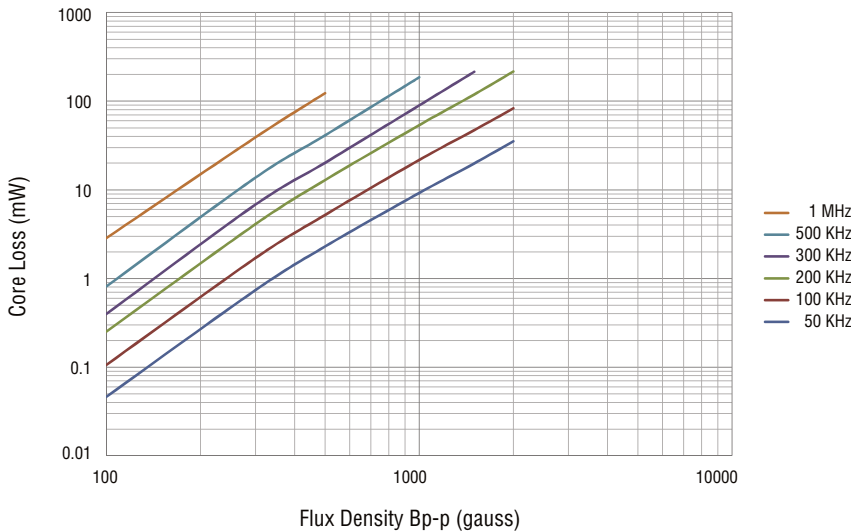
## Materials

Core ..... Ferrite DR and RI core  
 Wire ..... Enamelled copper  
 Terminal ..... Ag/Ni/Sn  
 Rated Current.. Ind. drop 35 % typ. at Isat  
 Temp. Rise..... 40 °C max. at rated Irms  
 Packaging ..... 1000 pcs. per reel

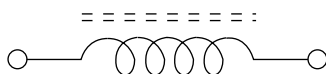
## Product Dimensions



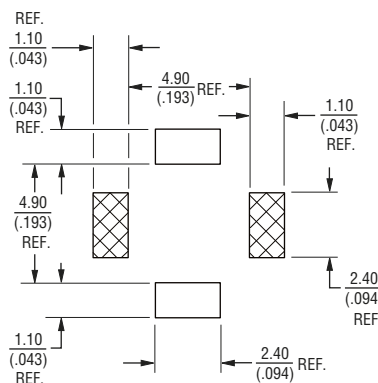
## Core Loss vs. Flux Density



## Electrical Schematic



## Recommended Layout



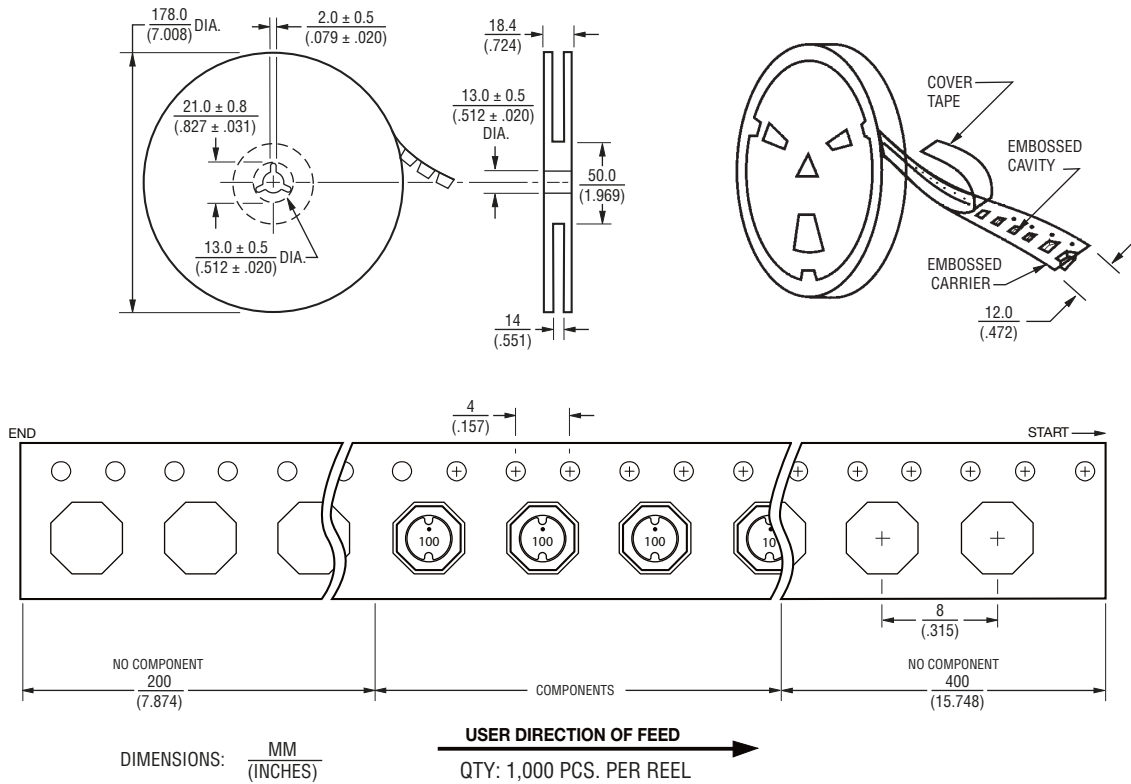
 **WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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# SRU6013 Series - Shielded SMD Power Inductors

**BOURNS®**

## Packaging Specifications



REV. 03/18

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