



## 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

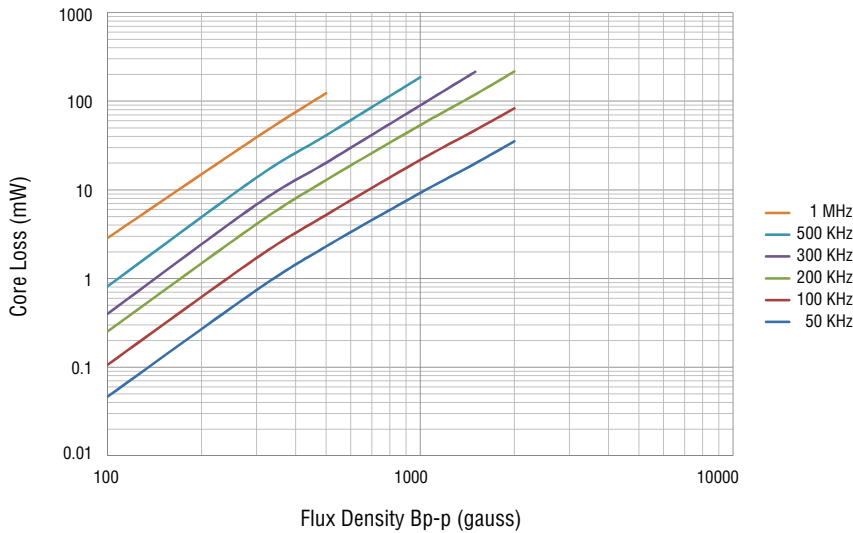
# SRU6013 Series - Shielded SMD Power Inductors

## Electrical Specifications

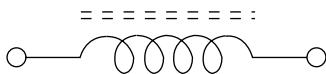
Bourns Part Number	Inductance @ 100 KHz		Q Ref.	Test Freq. (MHz)	SRF Typ. (MHz)	RDC Max. (mΩ)	I rms Max. (A)	I sat Typ. (A)	**K-Factor
	L (μH)	Tol. (%)							
SRU6013-1R0Y	1.0	±30	12	7.96	100	36	3.20	2.90	453
SRU6013-1R5Y	1.5	±30	10	7.96	90	40	3.00	2.40	370
SRU6013-2R2Y	2.2	±30	10	7.96	80	50	2.50	2.10	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.

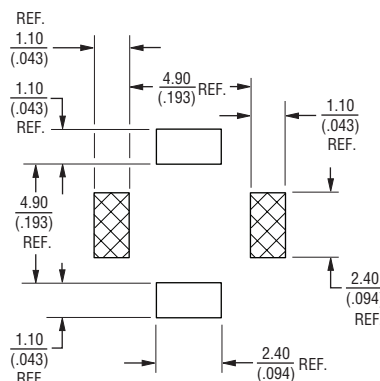
## Core Loss vs. Flux Density



## Electrical Schematic



## Recommended Layout



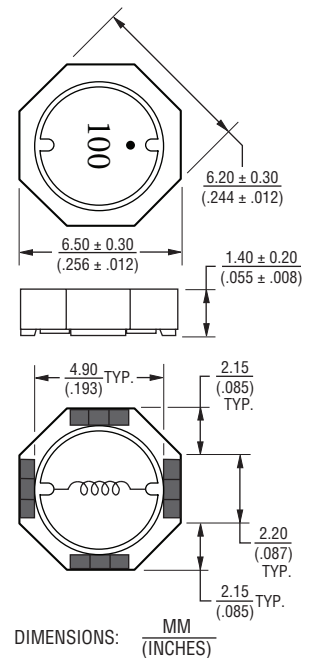
## General Specifications

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 ..... Enameled copper  
 Terminal ..... Ag/Ni/Sn  
 Rated Current... Ind. drop 35 % typ. at Isat  
 Temp. Rise ..... 40 °C max. at rated I rms  
 Packaging ..... 1000 pcs. per reel

## Product Dimensions

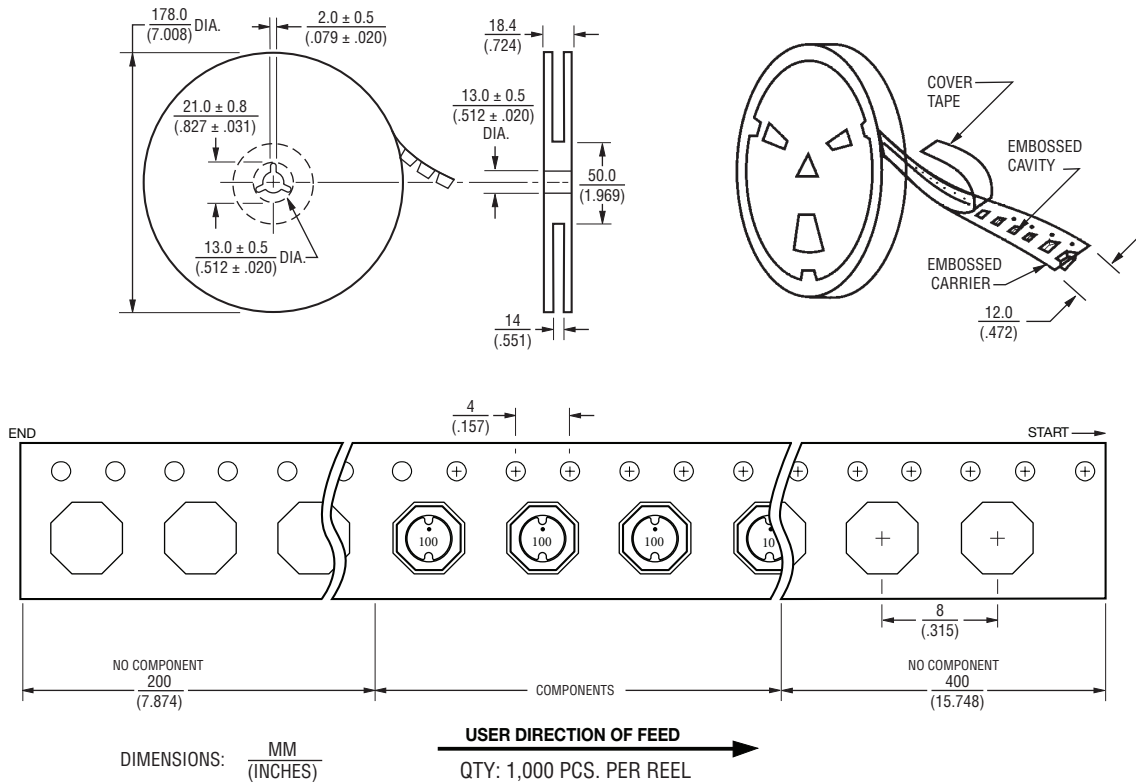


\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

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**BOURNS®**

## Packaging Specifications



REV. 03/18

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