



## Features

- Maximum height of 1.0 mm
- Current up to 1.45 A
- RoHS compliant\*

## Applications

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

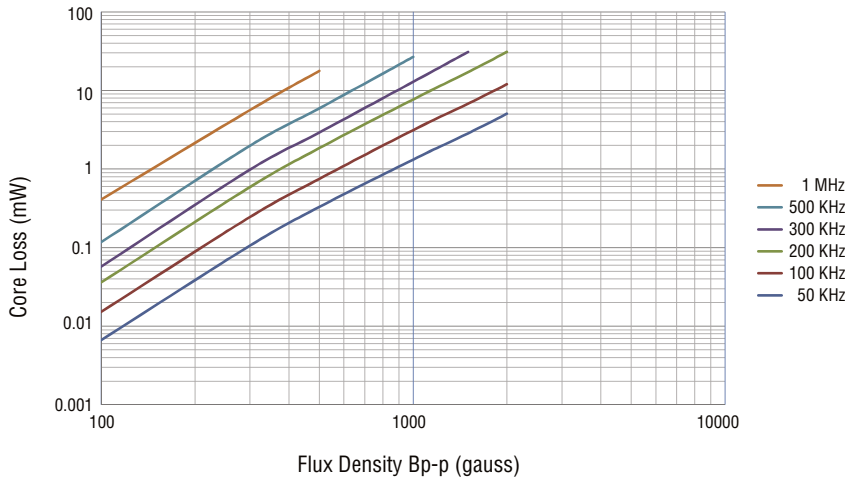
# SRU2009 Series - Shielded SMD Power Inductors

## Electrical Specifications

Bourns Part No.	Inductance 100 KHz		Q Ref.	Test Freq. (MHz)	SRF Typ. (MHz)	RDC Max. (mΩ)	Irms Max. (A)	Isat Typ. (A)	Marking	**K-Factor
	(μH)	Tol. %								
SRU2009-1R0Y	1.0	±30	7	7.96	200	110	1.45	1.30	A	2653
SRU2009-2R2Y	2.2	±30	7	7.96	120	210	1.10	0.80	C	1730
SRU2009-3R3Y	3.3	±30	7	7.96	100	320	0.80	0.60	E	1474
SRU2009-4R4Y	4.4	±30	7	7.96	85	430	0.68	0.50	F	1206
SRU2009-6R8Y	6.8	±30	7	7.96	70	650	0.52	0.45	G	1020
SRU2009-100Y	10	±30	10	2.52	50	1080	0.40	0.35	H	847
SRU2009-150Y	15	±30	10	2.52	40	1370	0.30	0.30	I	698
SRU2009-220Y	22	±30	10	2.52	30	2600	0.22	0.22	J	577

\*\*K-Factor: To calculate core flux density, Bp-p (gauss) =  $K \times L(\mu\text{H}) \times \Delta I$  (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

## Core Loss vs. Flux Density



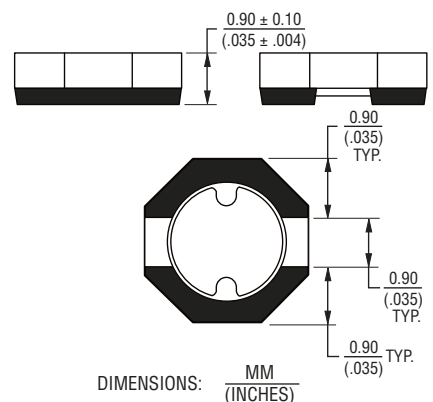
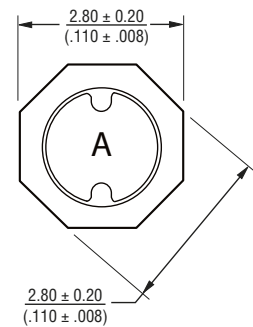
## General Specifications

Test Voltage ..... 0.1 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

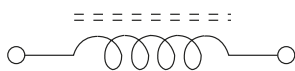
## Materials

Core ..... Ferrite DR and RI core  
 Wire ..... Enameled copper  
 Terminal ..... Ag/Ni/Sn  
 Rated Current ..... Ind. drop 35 % typ. at Isat  
 Temperature Rise ..... 40 °C max. at rated Irms  
 Packaging ..... 1,500 pcs. per reel

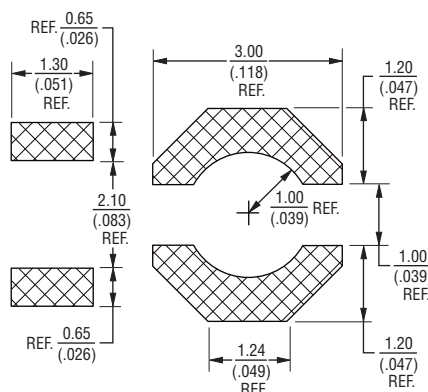
## Product Dimensions



## Electrical Schematic



## Recommended Layout



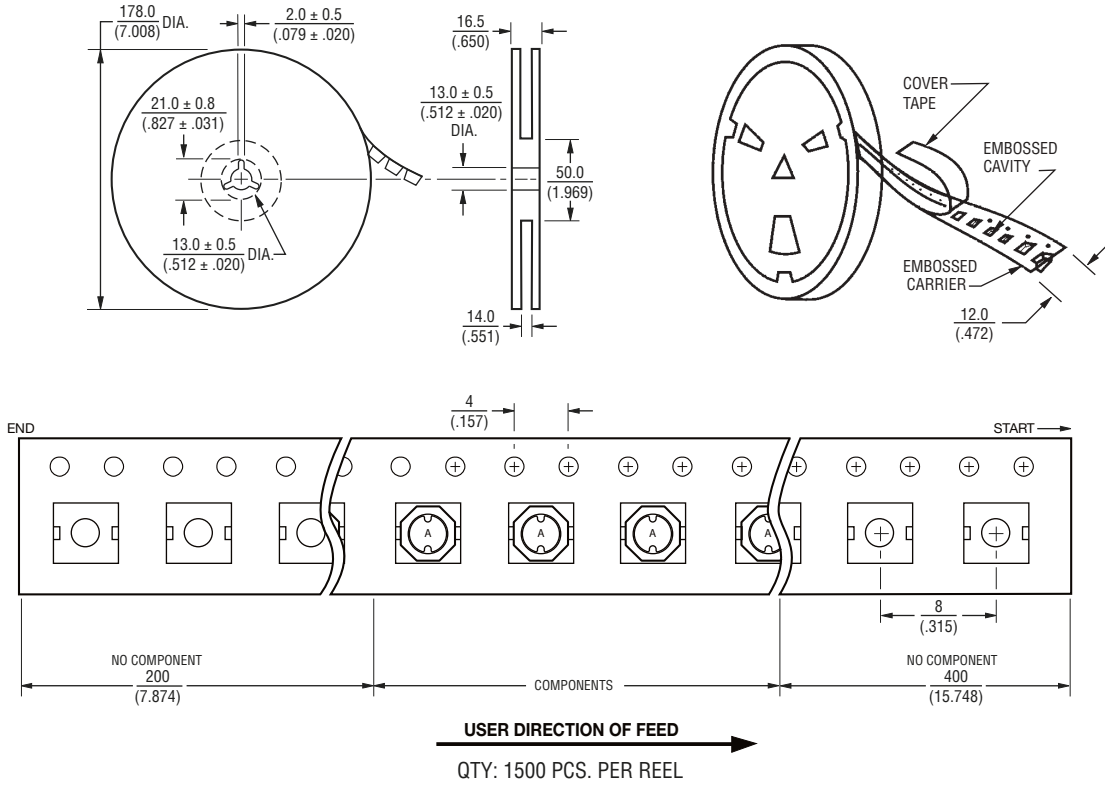
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

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**BOURNS®**

## Packaging Specifications



REV. 03/18

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