



## 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
  - Car radios

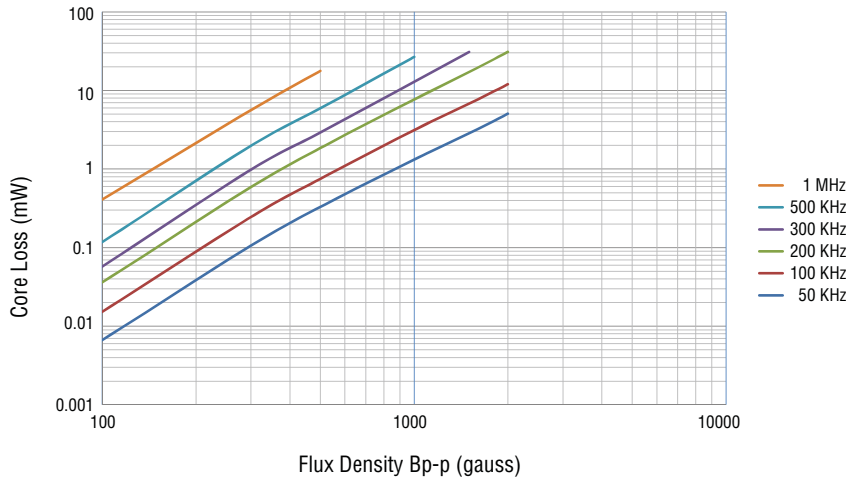
# SRU2009 Series - Shielded SMD Power Inductors

## Electrical Specifications

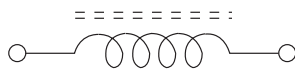
Bourns Part No.	Inductance 100 KHz		Q Ref.	Test Freq. (MHz)	SRF Typ. (MHz)	RDC Max. (mΩ)	I <sub>rms</sub> Max. (A)	I <sub>sat</sub> Typ. (A)	Marking	**K-Factor
	(μH)	Tol. %								
SRU2009-1R0Y	1.0	±30	7	7.96	200	110	1.45	1.30	A	2653
SRU2009-2R2Y	2.2	±30	7	7.96	120	210	1.10	0.80	C	1730
SRU2009-3R3Y	3.3	±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,  $B_{p-p}$  (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.

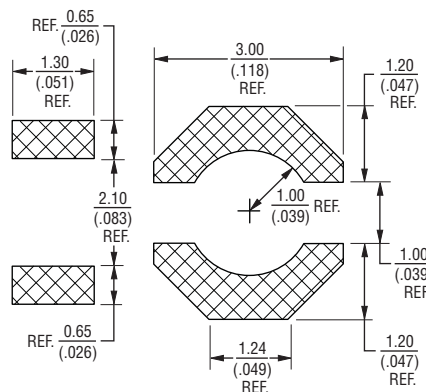
## Core Loss vs. Flux Density



## Electrical Schematic



## Recommended Layout



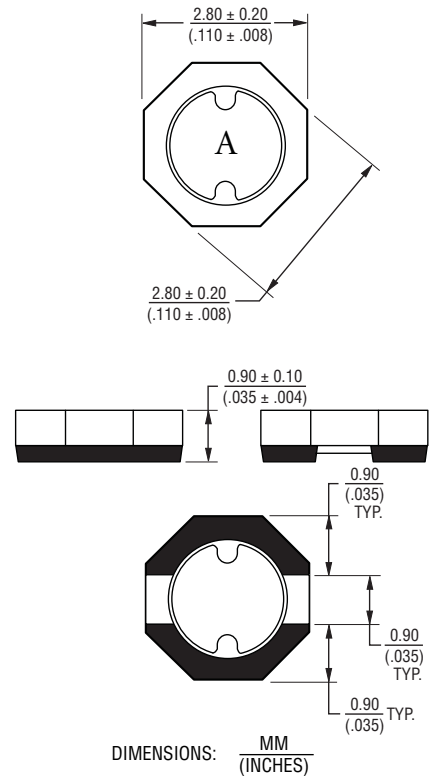
## General Specifications

Test Voltage ..... 0.1 V  
 Reflow Soldering .. 230 °C, 50 sec. max.  
 Operating 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.

## 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 ..... 1,500 pcs. per reel

## Product Dimensions



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

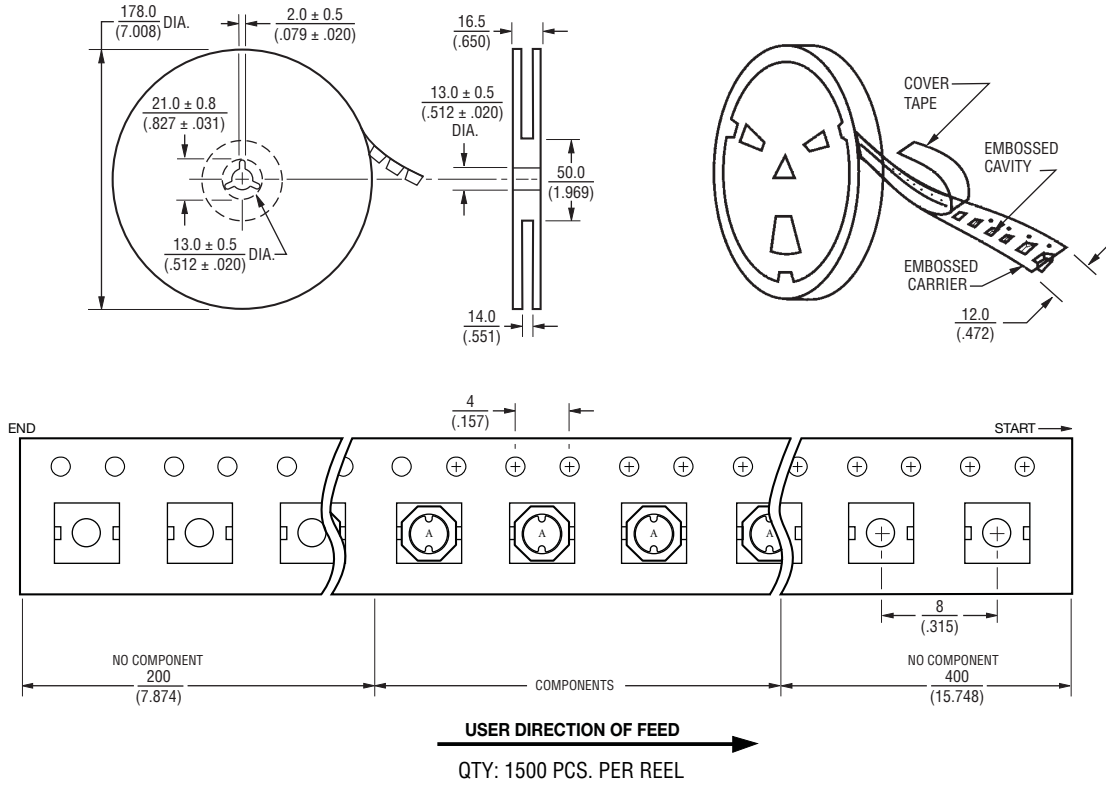
Specifications are subject to change without notice.

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



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

REV. 11/13

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