



## Features

- Maximum height of 1.05 mm
- Current up to 1.0 A
- RoHS compliant\*

## Applications

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

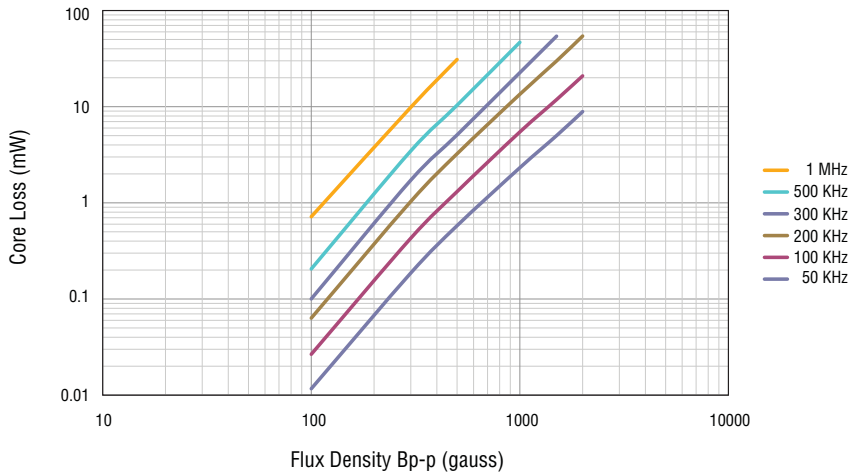
# SRU3009 Series - Shielded SMD Power Inductors

## Electrical Specifications

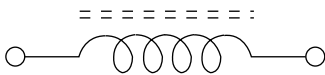
Bourns Part No.	Inductance 100 KHz		Q Ref.	Test Freq. (MHz)	SRF Typ. (MHz)	RDC Max. (mΩ)	I <sub>rms</sub> Max. (A)	Isat Typ. (A)	Marking	**K-Factor
	(μH)	Tol. %								
SRU3009-1R3Y	1.3	±30	10	7.96	210	115	1.00	1.10	A	1698
SRU3009-2R2Y	2.2	±30	8.5	7.96	150	145	0.80	0.85	B	1340
SRU3009-3R3Y	3.3	±30	8	7.96	130	225	0.65	0.72	C	1107
SRU3009-4R7Y	4.7	±30	9	7.96	100	290	0.48	0.50	D	943
SRU3009-6R8Y	6.8	±30	8	7.96	85	500	0.40	0.43	E	728
SRU3009-100Y	10	±30	8.5	2.52	60	760	0.28	0.35	F	621
SRU3009-220Y	22	±30	20	2.52	40	1450	0.22	0.25	G	417

\*\*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.

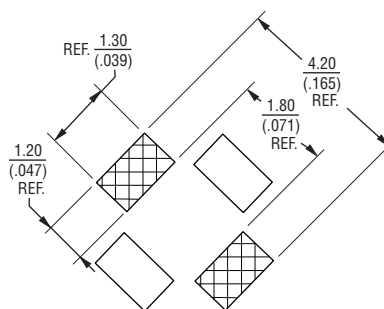
## Core Loss vs. Flux Density



## Electrical Schematic



## Recommended Layout



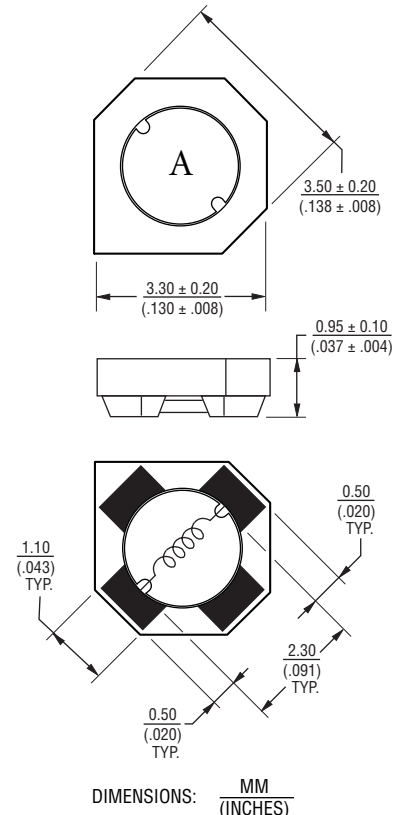
## General Specifications

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 Isat  
 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.

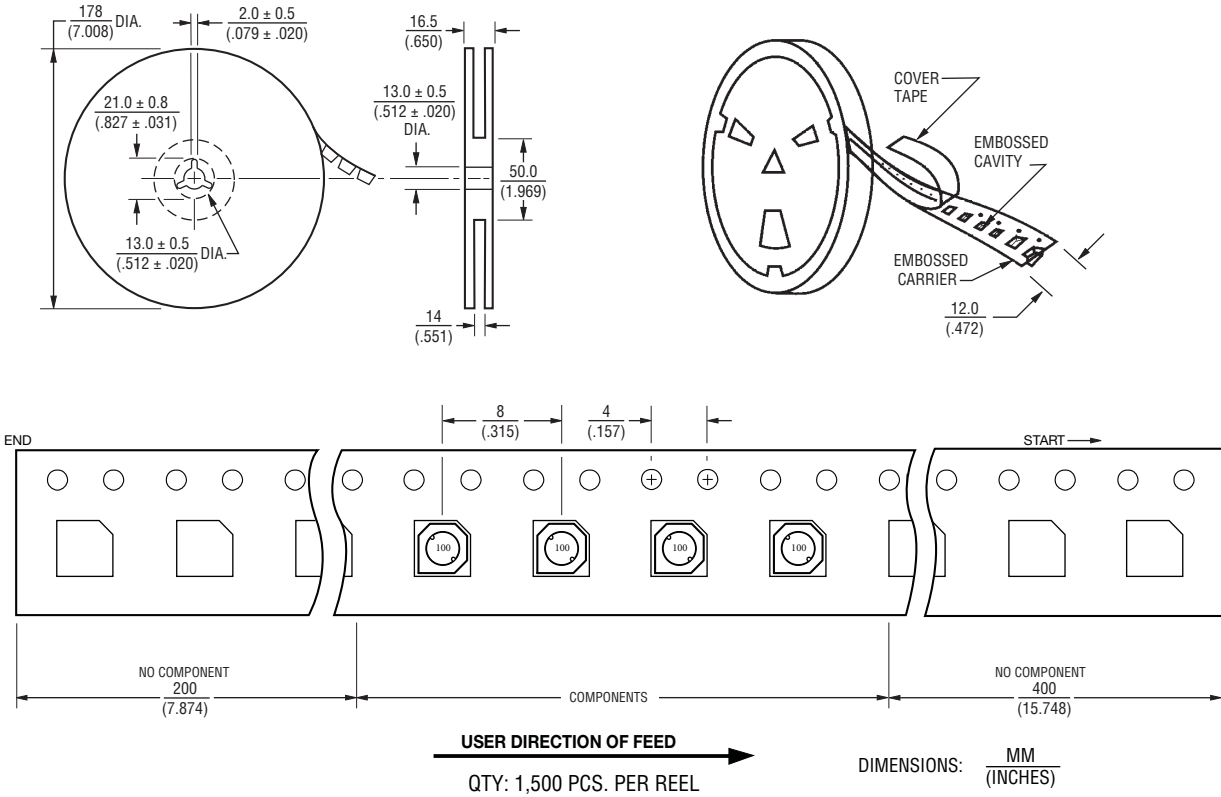
Specifications are subject to change without notice.

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



REV. 11/13

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