



### Features

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



The SRU3009 Series is  $I_{pl} \leq 1.0$  A aka not recommended for new designs.

## 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)	I <sub>sat</sub> 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.

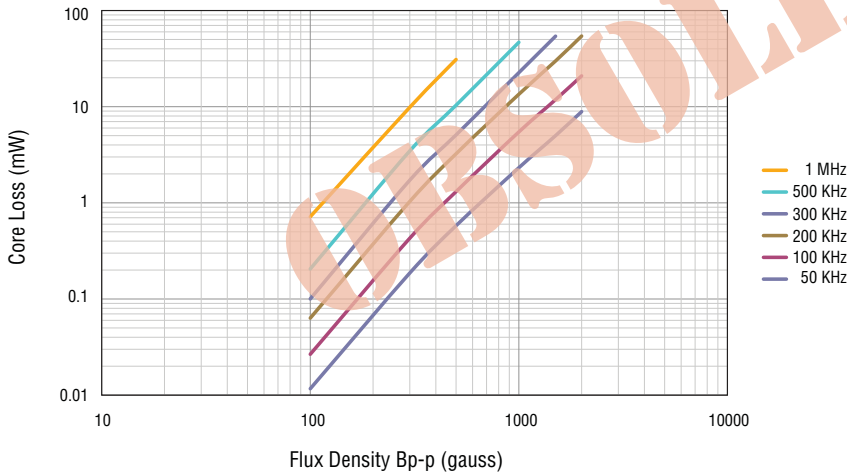
### General Specifications

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.

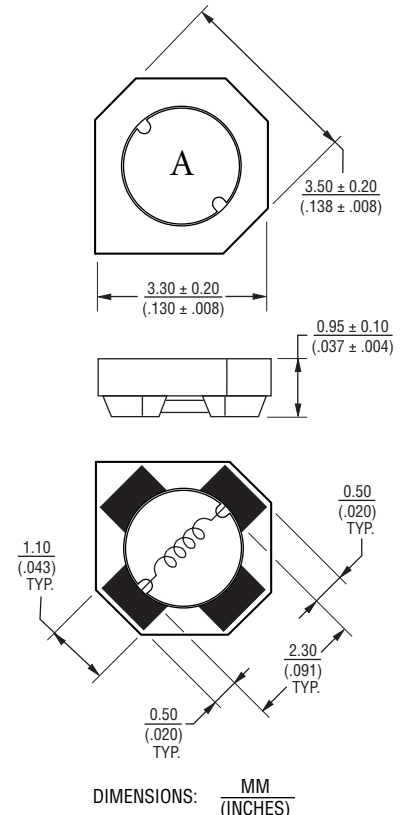
### Materials

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

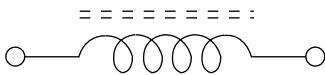
### Core Loss vs. Flux Density



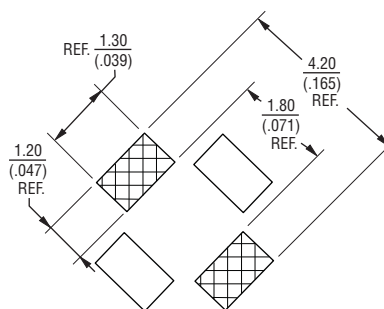
### Product Dimensions



### Electrical Schematic



### Recommended Layout



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

\* 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.

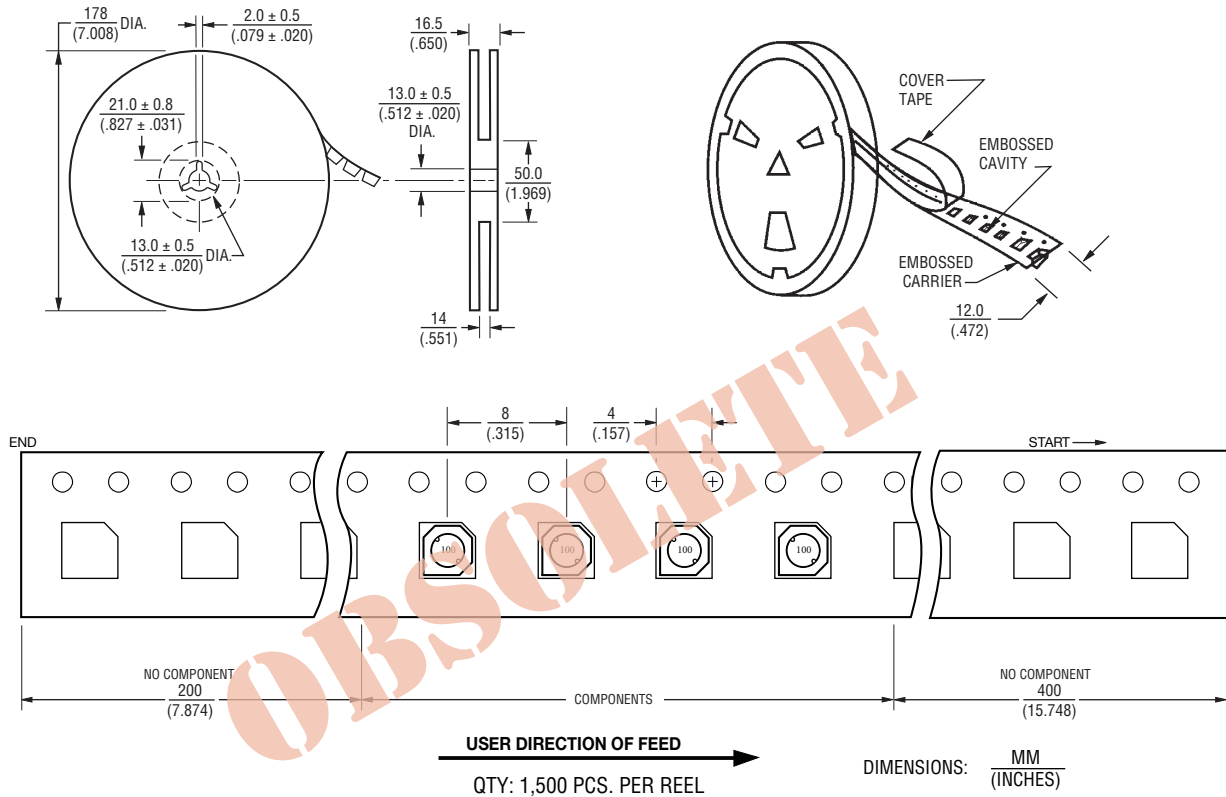
## Applications

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

## SRU3009 Series - Shielded SMD Power Inductors

**BOURNS®**

### Packaging Specifications



REV. 10/15

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