

### Features

- Low height of only 5.0 mm
- Inductance as low as 0.9  $\mu$ H
- High current up to 20 amps
- RoHS compliant\*

### Applications

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

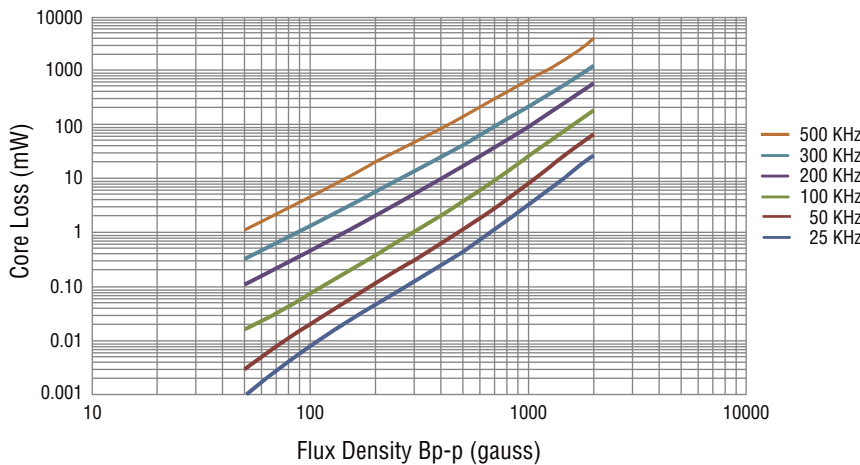
## SRR1305 Series - Shielded SMD High Power Inductors

### Electrical Characteristics

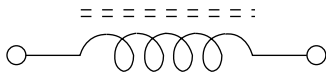
Bourns Part No.	Inductance 1 kHz / 1 V			SRF Min. (MHz)	RDC. (m $\Omega$ )	I rms (L1)Max. (A)	I sat Typ. (A)	**K- Factor
	L0 ( $\mu$ H)	L1 ( $\mu$ H)	Tol. %					
SRR1305-R90ZL	0.9	0.75	$\pm$ 25	95	2.5	20.0	22.0	185
SRR1305-1R4ZL	1.4	1.25	$\pm$ 25	70	3.4	16.0	18.0	136
SRR1305-2R0ZL	2.0	1.80	$\pm$ 25	60	4.6	13.0	15.0	107
SRR1305-2R7ZL	2.7	2.50	$\pm$ 25	50	9.5	6.0	10.0	89

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

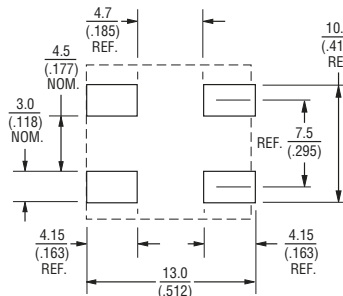
### Core Loss vs. Flux Density



### Schematic



### Recommended Layout



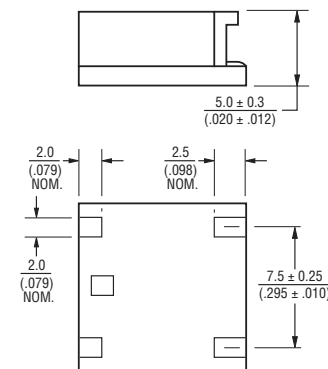
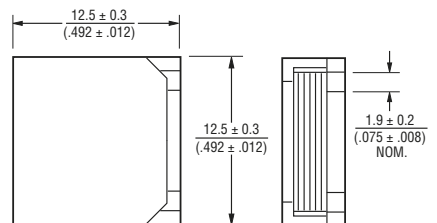
### General Specifications

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 5 sec.  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

### Materials

Core..... Ferrite ER and SB  
 Wire ..... Ultra-fine rectangular enameled copper  
 Terminal ..... Cu/Sn  
 Adhesive..... Epoxy resin  
 Rated Current .. Ind. drop 20 % max. at (L1) Isat  
 Temperature Rise .. 45 °C max. at rated Irms  
 Packaging..... 600 pcs. per reel

### Product Dimensions



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



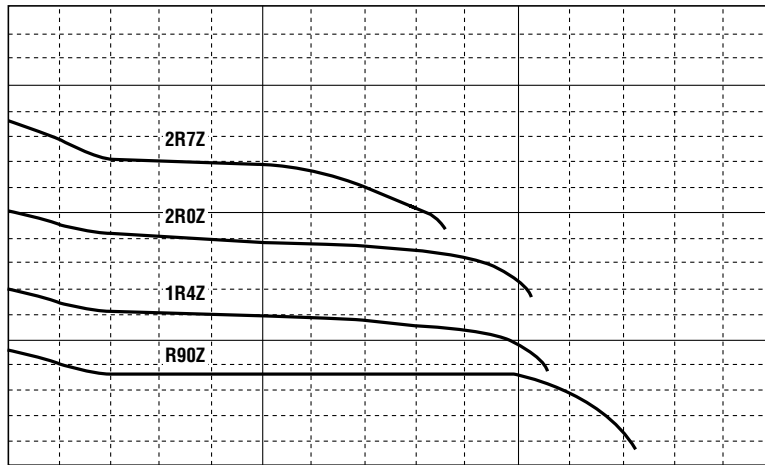
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*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).

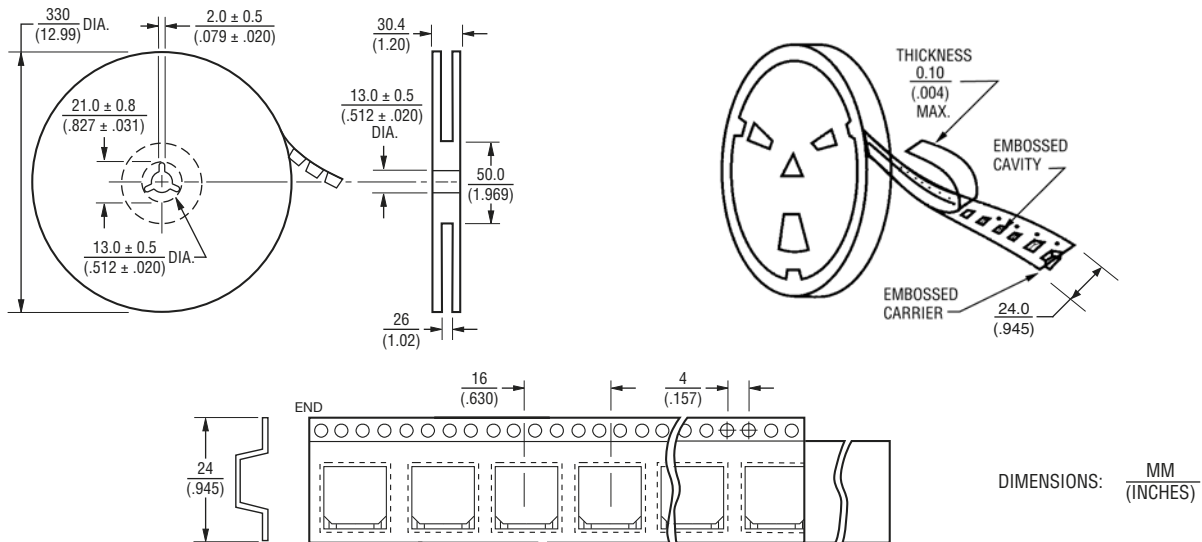
# SRR1305 Series - Shielded SMD High Power Inductors

**BOURNS®**

## Inductance vs. DC Superposition Characteristics



## Packaging Specifications



QTY: 600 PCS. PER REEL

REV. 03/18

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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