

Features

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

Applications

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

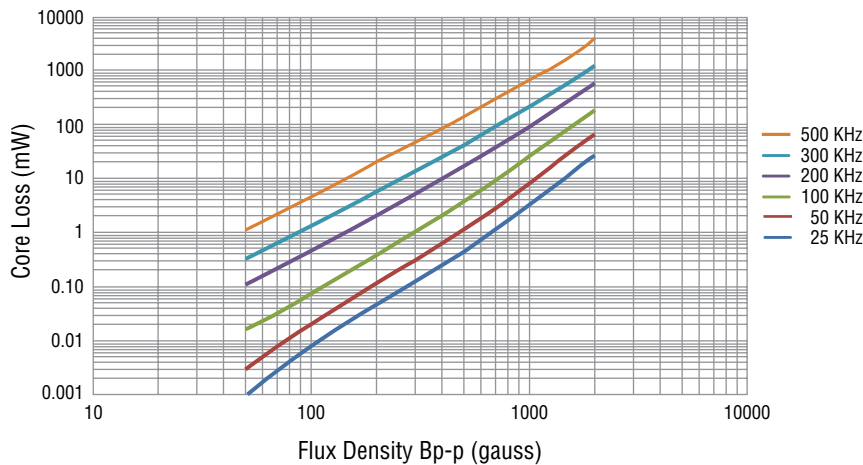
SRR1305 Series - Shielded SMD High Power Inductors

Electrical Characteristics

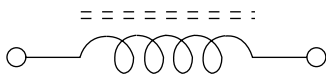
Bourns Part No.	Inductance 100 KHz			SRF Min. (MHz)	RDC. (m Ω)	I rms (L1)Max. (A)	I sat Typ. (A)	**K- Factor
	L0 (μH)	L1 (μH)	Tol. %					
SRR1305-R90ZL	0.9	0.75	± 25	95	2.5	20.0	22.0	185
SRR1305-1R4ZL	1.4	1.25	± 25	70	3.4	16.0	18.0	136
SRR1305-2R0ZL	2.0	1.80	± 25	60	4.6	13.0	15.0	107
SRR1305-2R7ZL	2.7	2.50	± 25	50	9.5	6.0	10.0	89

**K-Factor: To calculate core flux density, B_{p-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.

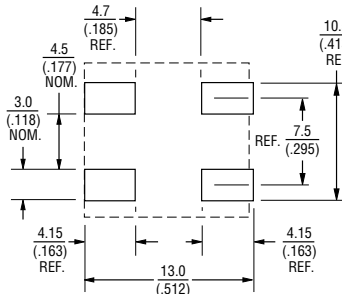
Core Loss vs. Flux Density



Schematic



Recommended Layout



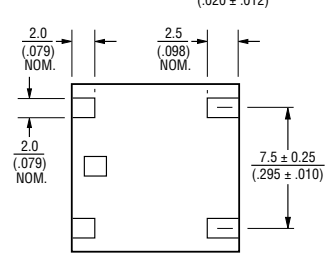
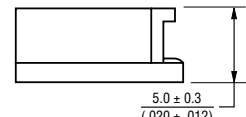
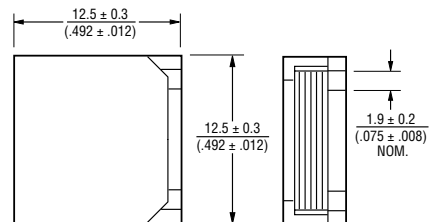
General Specifications

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 5 sec.

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 I rms
 Packaging 600 pcs. per reel

Product Dimensions



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

*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.

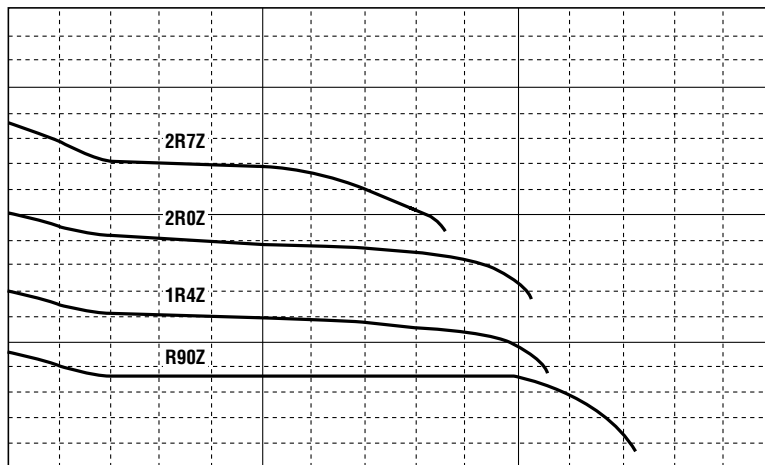
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

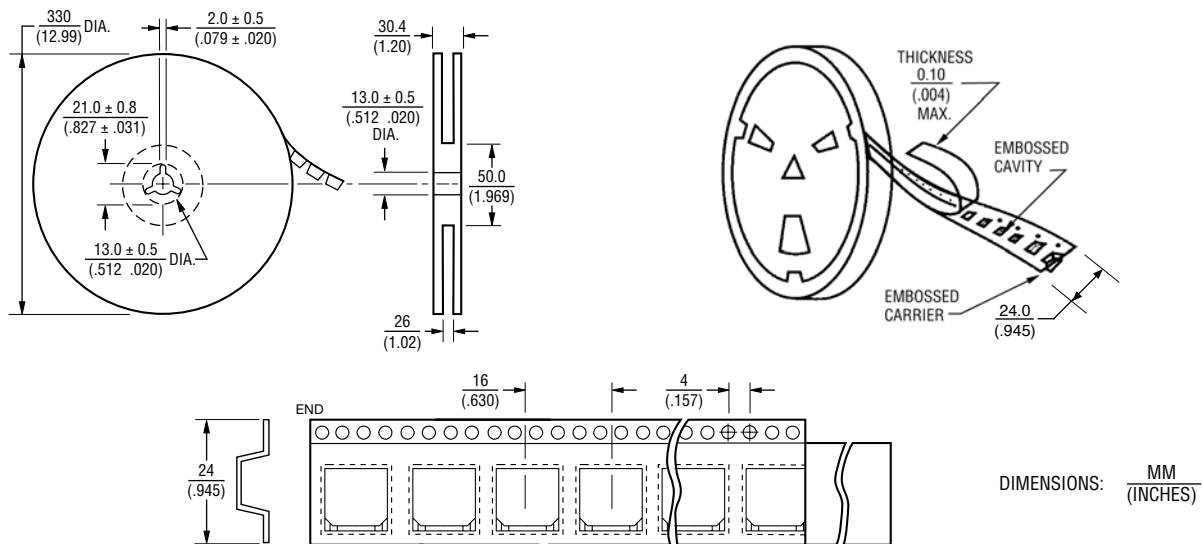
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BOURNS®

Inductance vs. DC Superposition Characteristics



Packaging Specifications



QTY: 600 PCS. PER REEL

REV. 03/17

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