

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

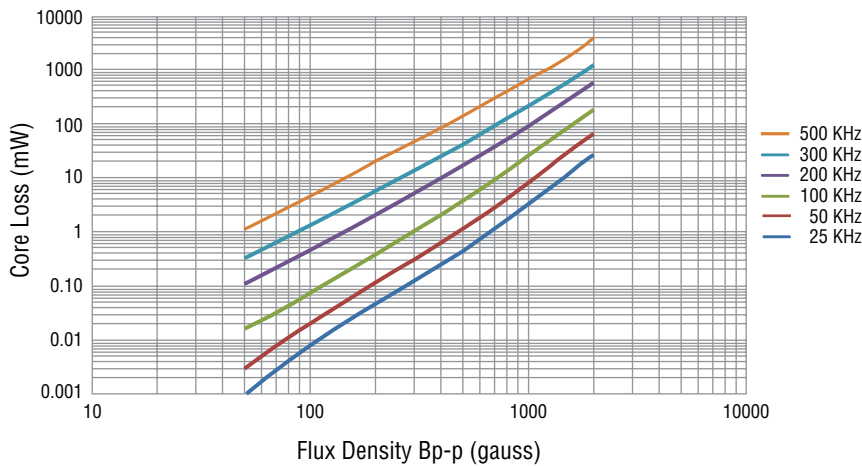
SRR1305 Series - Shielded SMD High Power Inductors

Electrical Characteristics

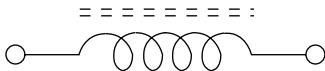
| Bourns Part No. | Inductance 1 kHz / 1 V | | | SRF Min. (MHz) | RDC. (m Ω) | I rms (L1)Max. (A) | I sat Typ. (A) | **K- Factor |
|-----------------|---------------------------|----------------------|----------|----------------------|-----------------------|--------------------------|----------------------|----------------|
| | 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 |

**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

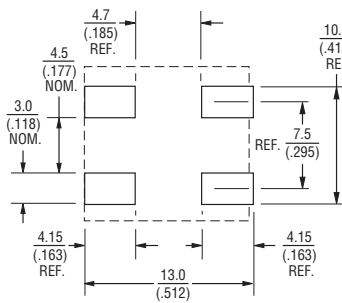


Additional Information

Click these links for more information:



Recommended Layout



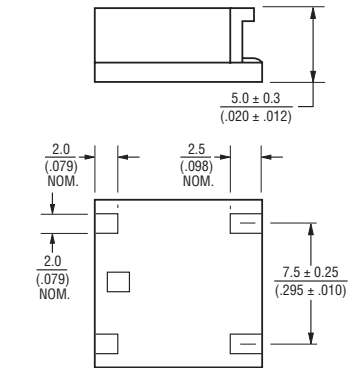
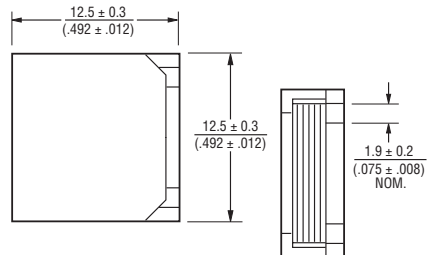
General Specifications

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 I rms
 Packaging 600 pcs. per reel

Product Dimensions



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



WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 Specifications are subject to change without notice.

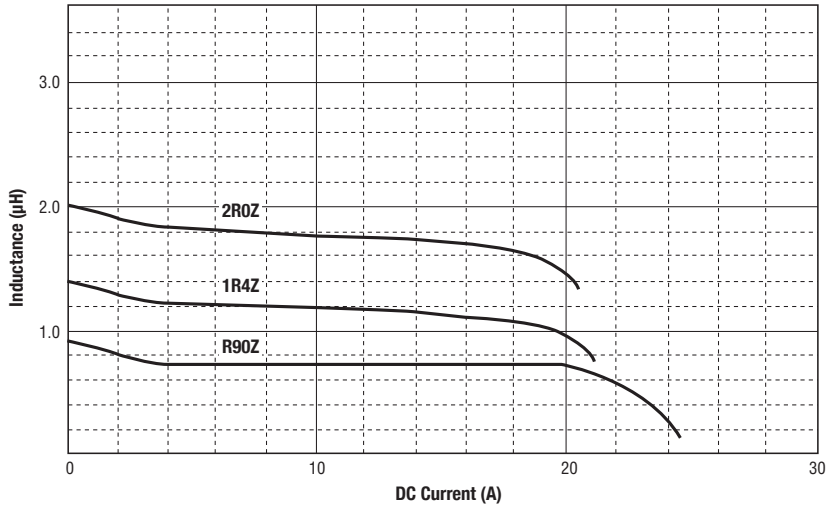
Users should verify actual device performance in their specific applications.

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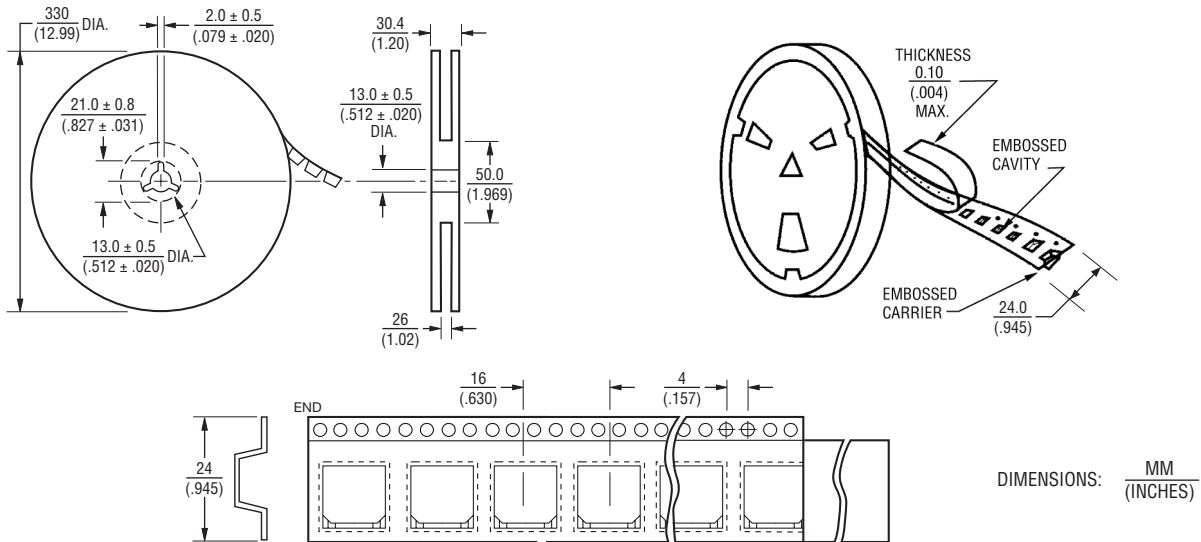
SRR1305 Series - Shielded SMD High Power Inductors

BOURNS®

Inductance vs. DC Superposition Characteristics



Packaging Specifications



QTY: 600 PCS. PER REEL

REV. 06/25

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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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