



**THE DATASHEET OF
SRR0905-471K**





Features

- Available in E12 series
- Height of 2.9 mm
- Current rating up to 2.1 A
- RoHS compliant*

Applications

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

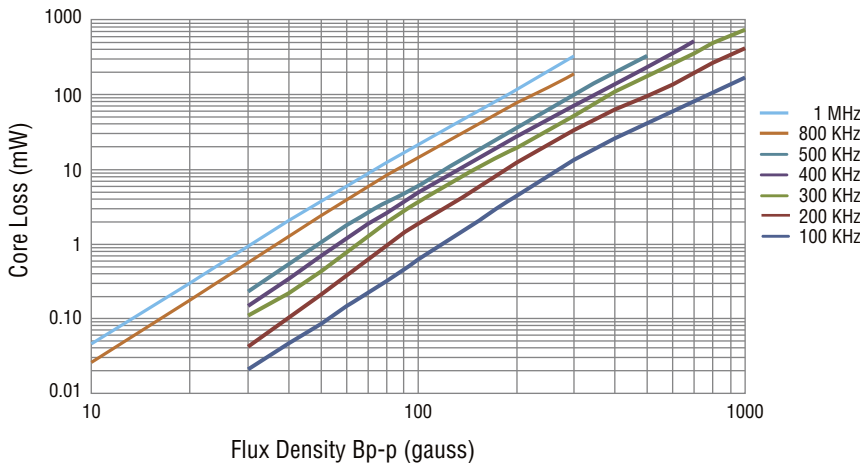
SRR0905 Series - Shielded SMD Power Inductors

Electrical Specifications

| Bourns Part No. | Inductance | | Q Ref. | Test Frequency (MHz) | SRF Typ. (MHz) | DCR Max. (Ω) | Idc (A) | **K-Factor |
|-----------------|------------|--------|--------|----------------------|----------------|--------------|---------|------------|
| | μH | Tol. % | | | | | | |
| SRR0905-100M | 10 | ± 20 | 39 | 2.52 | 29 | 0.06 | 2.1 | 77 |
| SRR0905-120M | 12 | ± 20 | 40 | 2.52 | 26 | 0.07 | 1.9 | 65 |
| SRR0905-150M | 15 | ± 20 | 35 | 2.52 | 24 | 0.07 | 1.7 | 57 |
| SRR0905-180M | 18 | ± 20 | 39 | 2.52 | 21 | 0.08 | 1.6 | 53 |
| SRR0905-220M | 22 | ± 20 | 35 | 2.52 | 18 | 0.08 | 1.4 | 48 |
| SRR0905-270M | 27 | ± 20 | 35 | 2.52 | 17 | 0.10 | 1.3 | 43 |
| SRR0905-330Y | 33 | ± 15 | 27 | 2.52 | 14 | 0.11 | 1.2 | 41 |
| SRR0905-390Y | 39 | ± 15 | 31 | 2.52 | 14 | 0.12 | 1.1 | 36 |
| SRR0905-470Y | 47 | ± 15 | 27 | 2.52 | 11 | 0.14 | 1.0 | 32 |
| SRR0905-560Y | 56 | ± 15 | 26 | 2.52 | 11 | 0.19 | 0.93 | 30 |
| SRR0905-680Y | 68 | ± 15 | 26 | 2.52 | 10 | 0.21 | 0.85 | 27 |
| SRR0905-820Y | 82 | ± 15 | 26 | 2.52 | 9 | 0.28 | 0.79 | 26 |
| SRR0905-101K | 100 | ± 10 | 29 | 0.796 | 8 | 0.34 | 0.72 | 22 |
| SRR0905-121K | 120 | ± 10 | 31 | 0.796 | 7 | 0.37 | 0.63 | 21 |
| SRR0905-151K | 150 | ± 10 | 24 | 0.796 | 6 | 0.51 | 0.55 | 18 |
| SRR0905-181K | 180 | ± 10 | 24 | 0.796 | 5 | 0.57 | 0.50 | 16 |
| SRR0905-221K | 220 | ± 10 | 27 | 0.796 | 5 | 0.78 | 0.47 | 15 |
| SRR0905-271K | 270 | ± 10 | 30 | 0.796 | 5 | 0.87 | 0.41 | 13 |
| SRR0905-331K | 330 | ± 10 | 29 | 0.796 | 4 | 1.20 | 0.37 | 13 |
| SRR0905-391K | 390 | ± 10 | 26 | 0.796 | 3 | 1.34 | 0.35 | 11 |
| SRR0905-471K | 470 | ± 10 | 26 | 0.796 | 3 | 1.50 | 0.33 | 10 |

**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



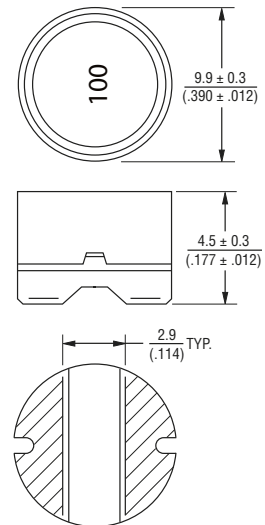
General Specifications

Inductance Test Frequency/Voltage
 SRR0905-100M to -820Y.. 2.52 MHz/1 V
 SRR0905-101K to 471K 1 kHz/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.
 Moisture Sensitivity Level..... 1
 ESD Classification (HBM)..... N/A

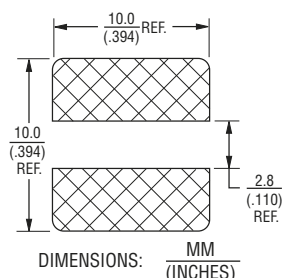
Materials

Core Material..... Ferrite DR & RI
 Wire Enameled copper
 Terminal Ag/Ni/Sn
 Rated Current
 Ind. drop of 10 % typ. at Isat
 Temperature Rise
 15 °C typ. at rated Irms
 Packaging..... 800 pcs. per reel

Product Dimensions



Recommended Layout



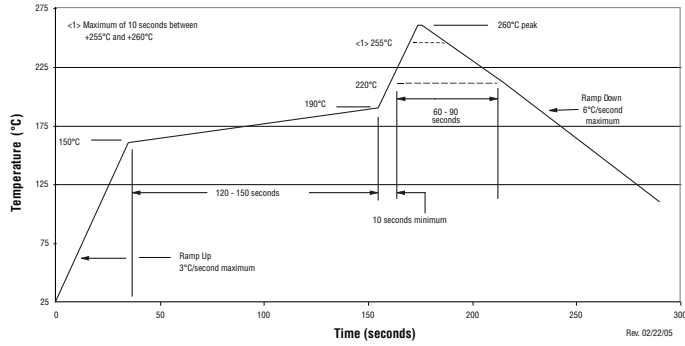
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*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

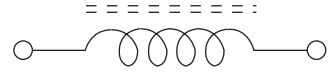
SRR0905 Series - Shielded SMD Power Inductors

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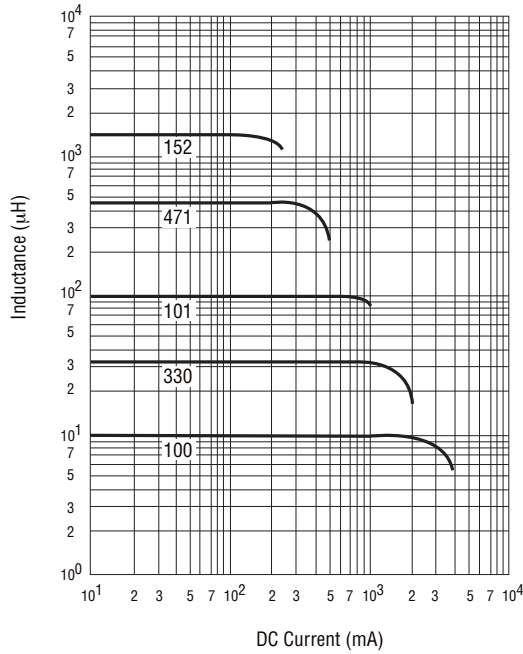
Soldering Profile



Schematic



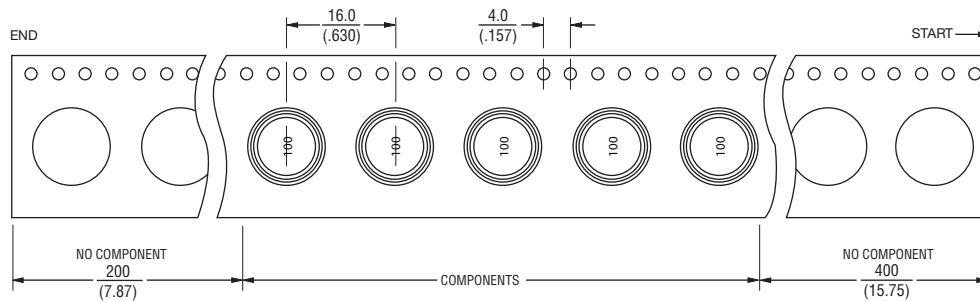
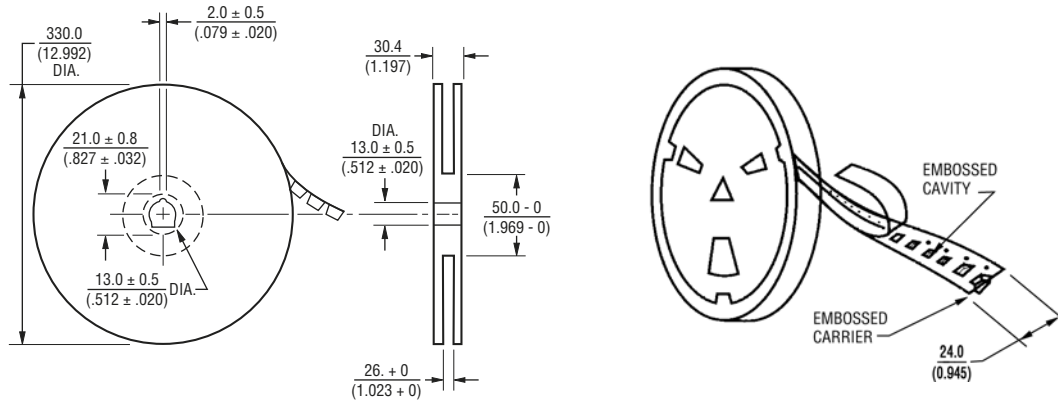
Inductance vs. Current



SRR0905 Series - Shielded SMD Power Inductors

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Packaging Specifications



USER DIRECTION OF FEED →

QTY: 800 PCS. PER REEL

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

REV. 03/18

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Users should verify actual device performance in their specific applications.

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