



**THE DATASHEET OF
SRR0908-100ML**





Features

- Available in E6 series, E12 series optional
- High inductance up to 15 mH
- High current up to 5.6 A
- Gull wing leads
- RoHS compliant*

Applications

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

SRR0908 Series - SMD Shielded Power Inductors

Electrical Specifications

| Bourns Part No. | Inductance 1 KHz | | Q Ref. | Test Freq. (MHz) | SRF Min. (MHz) | RDC Max. (Ω) | I rms Max. (A) | I sat Typ. (A) | **K-Factor |
|-----------------|------------------|--------|--------|------------------|----------------|--------------|----------------|----------------|------------|
| | μH | Tol. % | | | | | | | |
| SRR0908-1R5ML | 1.5 | ±20 | 20 | 7.96 | 65.0 | 0.014 | 5.60 | 10.00 | 114 |
| SRR0908-2R7ML | 2.7 | ±20 | 20 | 7.96 | 50.0 | 0.019 | 4.80 | 7.70 | 84 |
| SRR0908-3R9ML | 3.9 | ±20 | 20 | 7.96 | 35.0 | 0.021 | 4.40 | 6.60 | 74 |
| SRR0908-5R6ML | 5.6 | ±20 | 18 | 7.96 | 25.0 | 0.027 | 3.80 | 5.50 | 60 |
| SRR0908-7R5ML | 7.5 | ±20 | 18 | 7.96 | 15.0 | 0.032 | 3.40 | 4.60 | 50 |
| SRR0908-100ML | 10 | ±20 | 33 | 2.52 | 11.0 | 0.040 | 3.00 | 4.10 | 43 |
| SRR0908-120ML | 12 | ±20 | 40 | 2.52 | 11.0 | 0.050 | 2.50 | 4.00 | 41 |
| SRR0908-150ML | 15 | ±20 | 45 | 2.52 | 8.50 | 0.065 | 2.20 | 3.90 | 36 |
| SRR0908-180ML | 18 | ±20 | 40 | 2.52 | 8.50 | 0.075 | 2.00 | 3.80 | 34 |
| SRR0908-220ML | 22 | ±20 | 35 | 2.52 | 6.00 | 0.080 | 1.90 | 3.30 | 31 |
| SRR0908-270ML | 27 | ±20 | 45 | 2.52 | 6.00 | 0.090 | 1.80 | 2.90 | 27 |
| SRR0908-330ML | 33 | ±20 | 40 | 2.52 | 5.00 | 0.10 | 1.70 | 2.70 | 25 |
| SRR0908-390ML | 39 | ±20 | 45 | 2.52 | 5.00 | 0.135 | 1.50 | 2.40 | 23 |
| SRR0908-470ML | 47 | ±20 | 40 | 2.52 | 4.00 | 0.15 | 1.40 | 2.30 | 21 |
| SRR0908-560ML | 56 | ±20 | 35 | 2.52 | 3.00 | 0.165 | 1.35 | 2.10 | 19 |
| SRR0908-680ML | 68 | ±20 | 30 | 2.52 | 2.50 | 0.184 | 1.25 | 1.90 | 17 |
| SRR0908-820ML | 82 | ±20 | 30 | 2.52 | 2.40 | 0.26 | 1.05 | 1.90 | 16 |
| SRR0908-101YL | 100 | ±15 | 40 | 0.796 | 6.00 | 0.28 | 1.00 | 1.30 | 14 |
| SRR0908-121YL | 120 | ±15 | 42 | 0.796 | 5.70 | 0.34 | 0.90 | 1.10 | 13 |
| SRR0908-151YL | 150 | ±15 | 45 | 0.796 | 4.60 | 0.45 | 0.80 | 1.00 | 11 |
| SRR0908-181YL | 180 | ±15 | 35 | 0.796 | 4.20 | 0.50 | 0.70 | 1.00 | 10 |
| SRR0908-221YL | 220 | ±15 | 35 | 0.796 | 3.80 | 0.60 | 0.65 | 0.95 | 10 |
| SRR0908-271YL | 270 | ±15 | 30 | 0.796 | 3.40 | 0.70 | 0.60 | 0.75 | 8 |
| SRR0908-331YL | 330 | ±15 | 30 | 0.796 | 3.00 | 0.80 | 0.55 | 0.70 | 8 |
| SRR0908-391YL | 390 | ±15 | 33 | 0.796 | 2.60 | 1.00 | 0.50 | 0.65 | 7 |
| SRR0908-471YL | 470 | ±15 | 30 | 0.796 | 2.30 | 1.15 | 0.45 | 0.62 | 6 |
| SRR0908-561YL | 560 | ±15 | 35 | 0.796 | 2.20 | 1.50 | 0.38 | 0.55 | 6 |
| SRR0908-681YL | 680 | ±15 | 30 | 0.796 | 2.00 | 1.70 | 0.35 | 0.50 | 5 |
| SRR0908-821YL | 820 | ±15 | 35 | 0.796 | 1.90 | 2.20 | 0.32 | 0.45 | 5 |
| SRR0908-102YL | 1000 | ±15 | 85 | 0.252 | 1.90 | 2.20 | 0.32 | 0.45 | 4 |
| SRR0908-152YL | 1500 | ±15 | 120 | 0.252 | 1.30 | 4.00 | 0.25 | 0.35 | 4 |
| SRR0908-222YL | 2200 | ±15 | 95 | 0.252 | 1.00 | 5.00 | 0.20 | 0.29 | 3 |
| SRR0908-332YL | 3300 | ±15 | 95 | 0.252 | 0.90 | 8.00 | 0.15 | 0.24 | 2 |
| SRR0908-472YL | 4700 | ±15 | 90 | 0.252 | 0.80 | 12.00 | 0.12 | 0.19 | 2 |
| SRR0908-682YL | 6800 | ±15 | 90 | 0.252 | 0.60 | 16.50 | 0.10 | 0.16 | 2 |
| SRR0908-822YL | 8200 | ±15 | 85 | 0.252 | 0.50 | 24.00 | 0.10 | 0.14 | 2 |
| SRR0908-103YL | 10000 | ±15 | 110 | 0.0796 | 0.50 | 26.00 | 0.09 | 0.13 | 1 |
| SRR0908-153YL | 15000 | ±15 | 130 | 0.0796 | 0.40 | 40.00 | 0.08 | 0.12 | 1 |

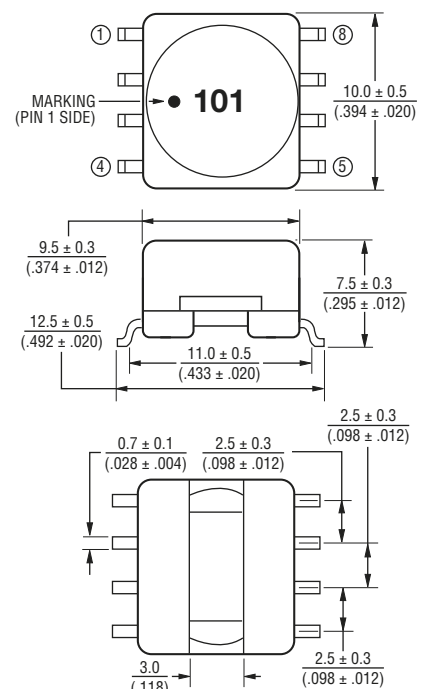
General Specifications

Test Voltage 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

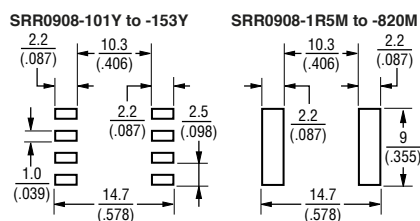
Materials

Core Ferrite DR & RI
 Wire Enamelled copper
 Base LCP
 Terminal Cu/Ni/Sn
 Adhesive Epoxy resin
 Rated Current Ind. drop of 10 % typ. at Isat
 Temperature Rise 40 °C max. at rated Irms
 Packaging 400 pcs. per reel

Product Dimensions



Recommended Layout



Multiple windings possible (up to four windings).

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



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

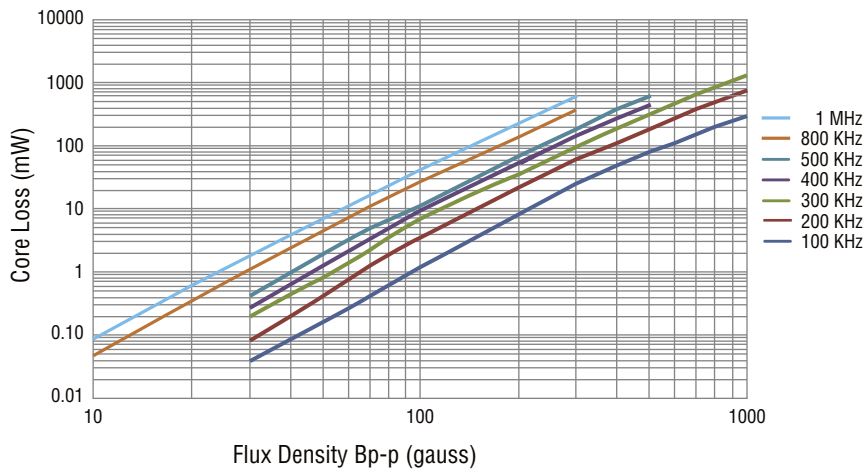
*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf

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

SRR0908 Series - SMD Shielded Power Inductors

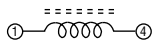


Core Loss vs. Flux Density

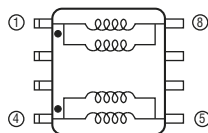


Electrical Schematics

SRR0908-101Y to -153Y



SRR0908-1R5M to -820M



TOP VIEW (Typical Layout)

Termination of each individual winding may be either Pin 1, 2, 3, or 4.

Termination of opposite end of each individual winding may be either Pin 5, 6, 7, or 8

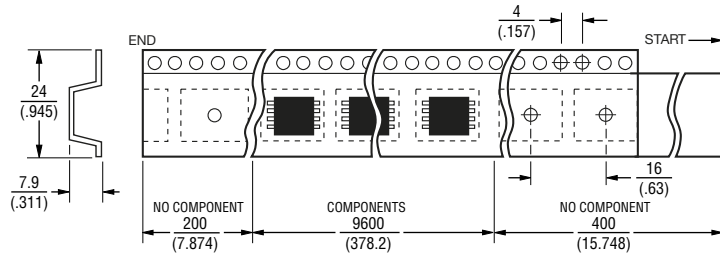
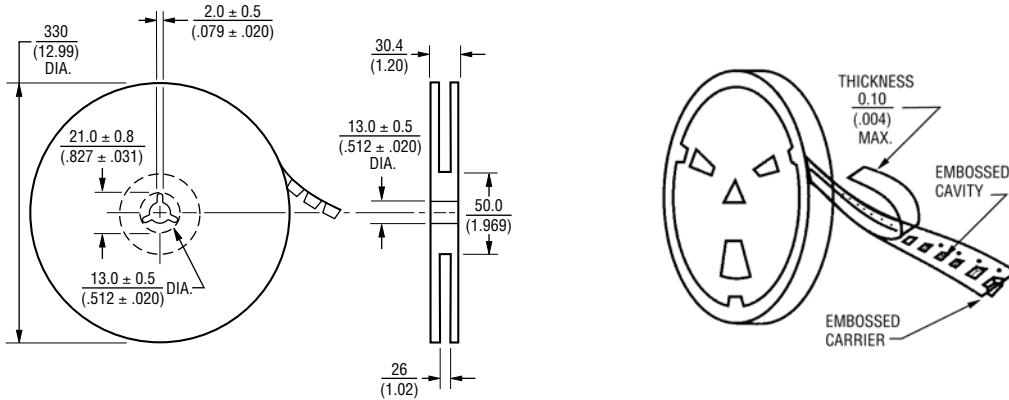
Windings will not be terminated to the same pin.

See "Recommended Layout" for SRR0908-1R5M to 820M.

SRR0908 Series - SMD Shielded Power Inductors

BOURNS®

Packaging Specifications



USER DIRECTION OF FEED →

QTY: 400 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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