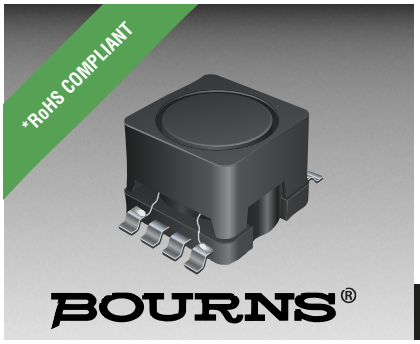
# THE DATASHEET OF

# SRR0908-102YL




## 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

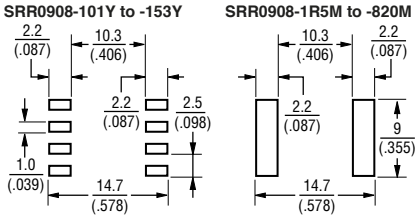
### Electrical Specifications

| 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 |

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.

### 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.



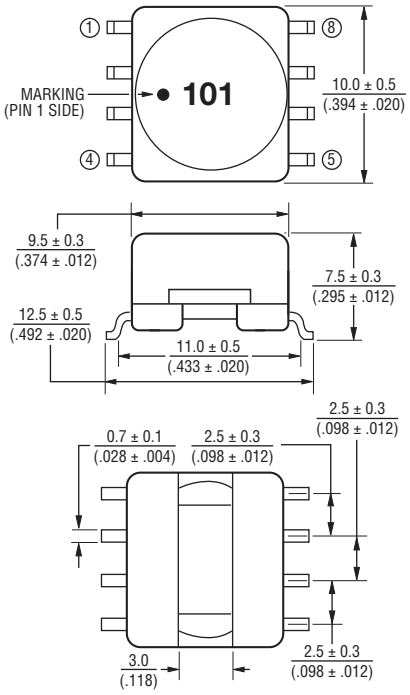
### General Specifications

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

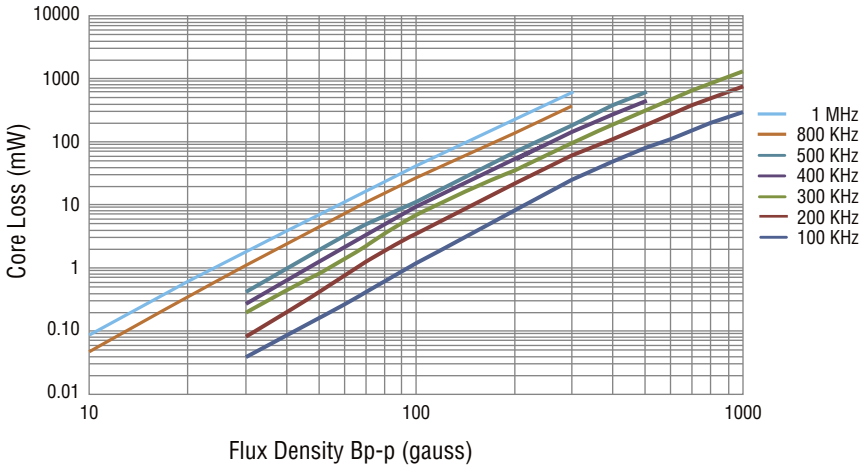
Core ..... Ferrite DR & RI
Wire ..... Enameled copper
Base ..... LCP
Terminal ..... Cu/Ni/Sn
Adhesive ..... Epoxy resin
Rated Current
..... Ind. drop of 10 % typ. at Isat
Temperature Rise
..... 40 °C max. at rated Irms
Packaging ..... 400 pcs. per reel

### Product Dimensions



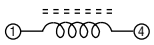

DIMENSIONS: MM (INCHES)

## Core Loss vs. Flux Density

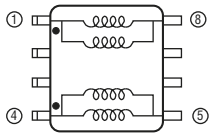



## Electrical Schematics

**SRR0908-101Y to -153Y**




**SRR0908-1R5M to -820M**




TOP VIEW (Typical Layout)

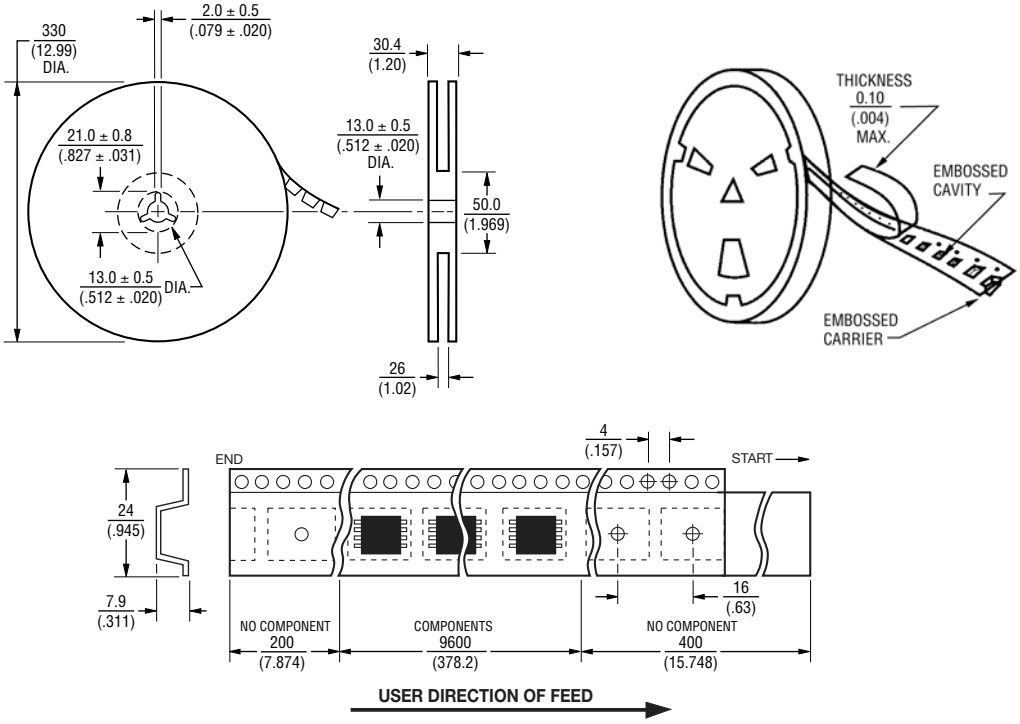
Termination of each individual winding may be either Pin 1, 2, 3, or 4.

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.

## Packaging Specifications




QTY: 400 PCS. PER REEL

DIMENSIONS: MM (INCHES)

REV. 03/18

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