



**THE DATASHEET OF  
SRR0908-270ML**





## 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

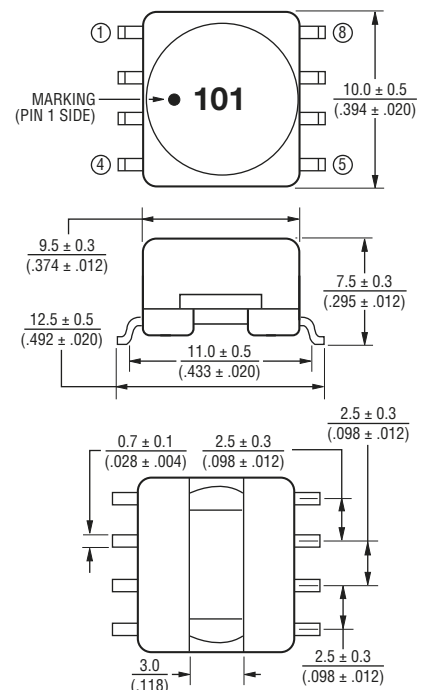
### General Specifications

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

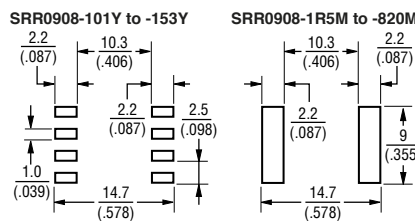
### Materials

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](http://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](http://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

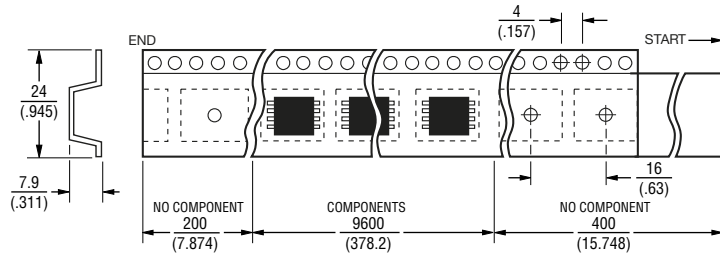
Windings will not be terminated to the same pin.

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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