

Features

- Available in E6 series
- High inductance up to 10 mH
- Low 6.0 mm profile
- Gull wing leads
- RoHS compliant*

Applications

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

SRR0906 Series - SMD Shielded Power Inductors

Electrical Specifications

| Bourns Part No. | Inductance 1 KHz | | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC Max. (Ω) | I rms Max. (A) | I sat Typ. (A) | **K- Factor |
|-----------------|---------------------|--------|-----------|----------------------------|----------------------|--------------------|----------------------|----------------------|----------------|
| | μH | Tol. % | | | | | | | |
| SRR0906-2R7ML | 2.7 | ±20 | 23 | 7.96 | 85.0 | 0.032 | 3.20 | 5.80 | 173 |
| SRR0906-3R5ML | 3.5 | ±20 | 23 | 7.96 | 80.0 | 0.036 | 2.90 | 5.20 | 148 |
| SRR0906-4R7ML | 4.7 | ±20 | 23 | 7.96 | 40.0 | 0.040 | 2.70 | 4.30 | 130 |
| SRR0906-5R6ML | 5.6 | ±20 | 23 | 7.96 | 57.0 | 0.046 | 2.50 | 4.20 | 115 |
| SRR0906-6R8ML | 6.8 | ±20 | 23 | 7.96 | 38.0 | 0.050 | 2.30 | 3.40 | 104 |
| SRR0906-8R2ML | 8.2 | ±20 | 23 | 7.96 | 30.0 | 0.055 | 2.10 | 3.20 | 94 |
| SRR0906-100ML | 10 | ±20 | 35 | 2.52 | 29.0 | 0.080 | 1.80 | 2.70 | 80 |
| SRR0906-120ML | 12 | ±20 | 35 | 2.52 | 26.0 | 0.085 | 1.70 | 2.60 | 74 |
| SRR0906-150ML | 15 | ±20 | 35 | 2.52 | 23.0 | 0.100 | 1.60 | 2.40 | 65 |
| SRR0906-180ML | 18 | ±20 | 35 | 2.52 | 22.0 | 0.110 | 1.50 | 2.00 | 61 |
| SRR0906-220ML | 22 | ±20 | 35 | 2.52 | 19.0 | 0.130 | 1.40 | 1.90 | 52 |
| SRR0906-270ML | 27 | ±20 | 35 | 2.52 | 17.0 | 0.140 | 1.30 | 1.80 | 47 |
| SRR0906-330ML | 33 | ±20 | 35 | 2.52 | 15.0 | 0.150 | 1.20 | 1.60 | 43 |
| SRR0906-390ML | 39 | ±20 | 35 | 2.52 | 14.0 | 0.160 | 1.10 | 1.40 | 42 |
| SRR0906-470ML | 47 | ±20 | 35 | 2.52 | 12.0 | 0.180 | 1.00 | 1.30 | 36 |
| SRR0906-560ML | 56 | ±20 | 35 | 2.52 | 12.0 | 0.300 | 0.93 | 1.20 | 34 |
| SRR0906-680ML | 68 | ±20 | 40 | 2.52 | 9.0 | 0.350 | 0.85 | 1.00 | 31 |
| SRR0906-820ML | 82 | ±20 | 40 | 2.52 | 8.0 | 0.370 | 0.78 | 0.90 | 28 |
| SRR0906-101YL | 100 | ±15 | 40 | 0.796 | 7.5 | 0.420 | 0.70 | 0.90 | 25 |
| SRR0906-121YL | 120 | ±15 | 40 | 0.796 | 7.0 | 0.480 | 0.65 | 0.75 | 23 |
| SRR0906-151YL | 150 | ±15 | 40 | 0.796 | 6.0 | 0.550 | 0.60 | 0.70 | 20 |
| SRR0906-181YL | 180 | ±15 | 40 | 0.796 | 5.5 | 0.820 | 0.52 | 0.70 | 19 |
| SRR0906-221YL | 220 | ±15 | 40 | 0.796 | 5.0 | 1.000 | 0.48 | 0.60 | 16 |
| SRR0906-271YL | 270 | ±15 | 40 | 0.796 | 5.0 | 1.100 | 0.44 | 0.55 | 15 |
| SRR0906-331YL | 330 | ±15 | 40 | 0.796 | 4.5 | 1.300 | 0.40 | 0.51 | 13 |
| SRR0906-391YL | 390 | ±15 | 40 | 0.796 | 4.2 | 1.400 | 0.38 | 0.50 | 12 |
| SRR0906-471YL | 470 | ±15 | 40 | 0.796 | 4.0 | 1.600 | 0.35 | 0.40 | 11 |
| SRR0906-561YL | 560 | ±15 | 60 | 0.796 | 3.2 | 2.700 | 0.28 | 0.35 | 11 |
| SRR0906-681YL | 680 | ±15 | 60 | 0.796 | 2.7 | 3.200 | 0.25 | 0.33 | 9 |
| SRR0906-821YL | 820 | ±15 | 85 | 0.796 | 2.6 | 3.500 | 0.23 | 0.30 | 9 |
| SRR0906-102YL | 1000 | ±15 | 100 | 0.252 | 2.3 | 4.000 | 0.22 | 0.26 | 8 |
| SRR0906-122YL | 1200 | ±15 | 100 | 0.252 | 2.3 | 4.400 | 0.20 | 0.24 | 7 |
| SRR0906-152YL | 1500 | ±15 | 100 | 0.252 | 2.0 | 5.200 | 0.18 | 0.22 | 6 |
| SRR0906-182YL | 1800 | ±15 | 100 | 0.252 | 1.7 | 7.000 | 0.17 | 0.20 | 6 |
| SRR0906-222YL | 2200 | ±15 | 100 | 0.252 | 1.5 | 8.500 | 0.16 | 0.18 | 5 |
| SRR0906-272YL | 2700 | ±15 | 100 | 0.252 | 1.4 | 9.200 | 0.14 | 0.17 | 5 |
| SRR0906-332YL | 3300 | ±15 | 100 | 0.252 | 1.3 | 11.000 | 0.12 | 0.15 | 4 |
| SRR0906-392YL | 3900 | ±15 | 100 | 0.252 | 1.2 | 16.000 | 0.11 | 0.13 | 4 |
| SRR0906-472YL | 4700 | ±15 | 100 | 0.252 | 1.0 | 19.000 | 0.10 | 0.11 | 4 |
| SRR0906-562YL | 5600 | ±15 | 100 | 0.252 | 0.9 | 21.000 | 0.09 | 0.11 | 3 |
| SRR0906-682YL | 6800 | ±15 | 100 | 0.252 | 0.9 | 24.000 | 0.09 | 0.10 | 3 |
| SRR0906-822YL | 8200 | ±15 | 100 | 0.252 | 0.8 | 31.000 | 0.08 | 0.09 | 3 |
| SRR0906-103YL | 10000 | ±15 | 100 | 0.0796 | 0.7 | 38.000 | 0.07 | 0.08 | 2 |

Multiple windings possible (up to four windings).

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

Schematic



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

*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.

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.

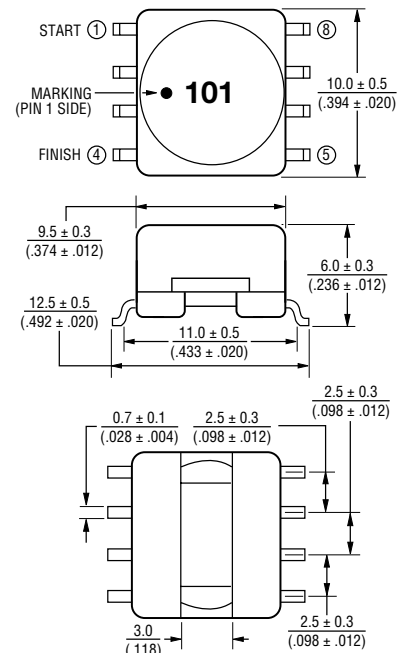
General Specifications

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.

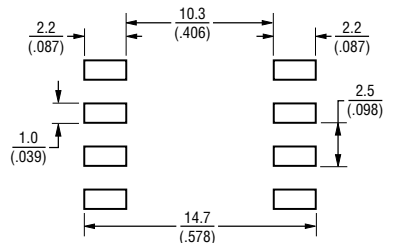
Materials

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 I rms
 Packaging 600 pcs. per reel

Product Dimensions



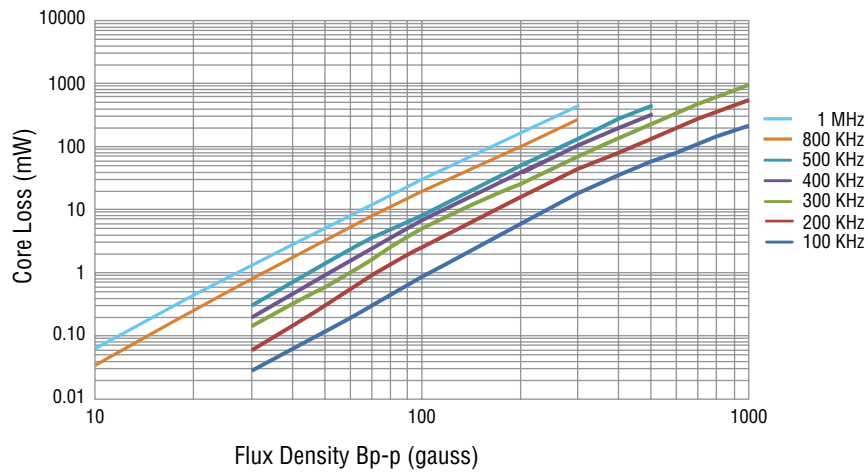
Recommended Layout



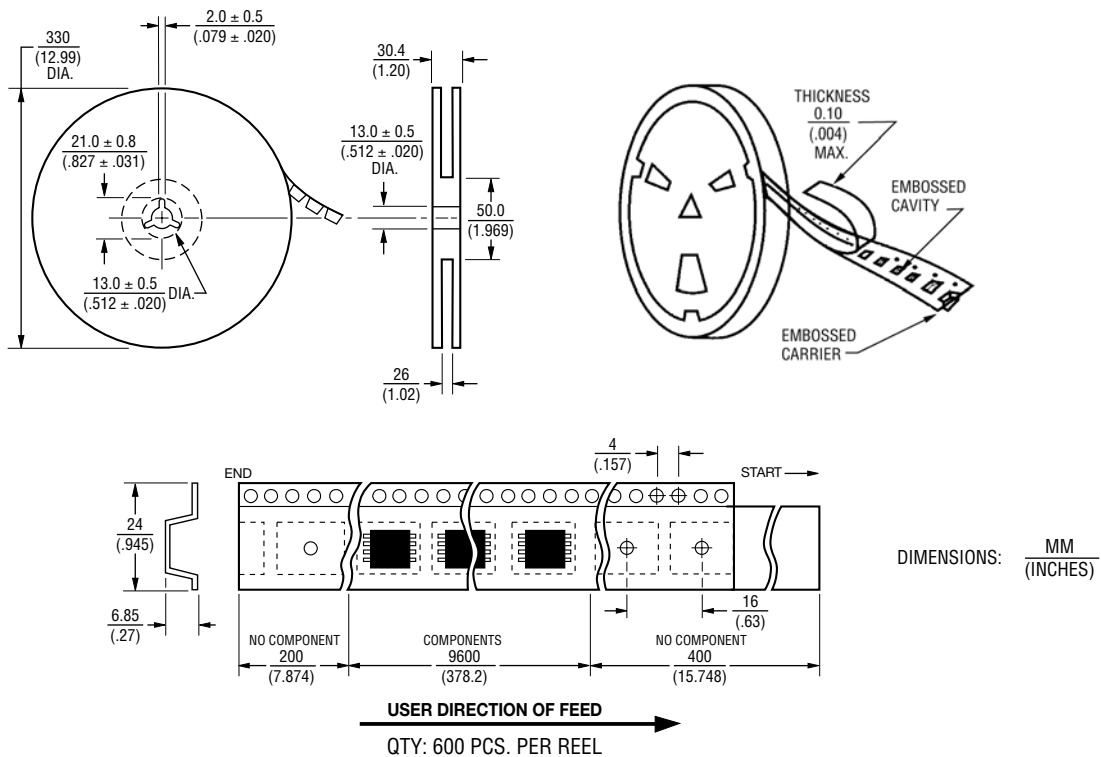
SRR0906 Series - SMD Shielded Power Inductors

BOURNS®

Core Loss vs. Flux Density



Packaging Specifications



REV. 03/17

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