

Features

- Available in E12 series
- Unit height of 5.2 mm
- Current up to 4.5 A
- RoHS compliant*

Applications

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

SRR1005 Series - 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. % | | | | | | | |
| SRR1005-1R0M | 1.0 | ± 20 | 25 | 7.96M | 120 | 0.017 | 4.50 | 8.00 | 218 |
| SRR1005-1R5M | 1.5 | ± 20 | 25 | 7.96M | 100 | 0.020 | 3.60 | 7.00 | 179 |
| SRR1005-2R2M | 2.2 | ± 20 | 25 | 7.96M | 90.0 | 0.027 | 3.10 | 6.10 | 151 |
| SRR1005-3R0M | 3.0 | ± 20 | 25 | 7.96M | 80.0 | 0.030 | 2.90 | 5.00 | 131 |
| SRR1005-3R3M | 3.3 | ± 20 | 25 | 7.96M | 75.0 | 0.039 | 3.30 | 3.90 | 131 |
| SRR1005-4R7M | 4.7 | ± 20 | 25 | 7.96M | 50.0 | 0.040 | 2.50 | 3.80 | 103 |
| SRR1005-6R8M | 6.8 | ± 20 | 22 | 7.96M | 35.0 | 0.075 | 2.20 | 2.80 | 85 |
| SRR1005-7R0M | 7.0 | ± 20 | 22 | 7.96M | 32.0 | 0.055 | 2.20 | 3.20 | 85 |
| SRR1005-100M | 10 | ± 20 | 48 | 2.52M | 30.0 | 0.065 | 2.00 | 3.00 | 73 |
| SRR1005-120M | 12 | ± 20 | 45 | 2.52M | 25.0 | 0.080 | 1.80 | 2.30 | 63 |
| SRR1005-150M | 15 | ± 20 | 40 | 2.52M | 20.0 | 0.085 | 1.70 | 2.10 | 56 |
| SRR1005-180Y | 18 | ± 15 | 35 | 2.52M | 19.0 | 0.090 | 1.60 | 2.10 | 53 |
| SRR1005-220Y | 22 | ± 15 | 42 | 2.52M | 18.0 | 0.100 | 1.40 | 1.90 | 48 |
| SRR1005-270Y | 27 | ± 15 | 40 | 2.52M | 17.0 | 0.120 | 1.30 | 1.60 | 44 |
| SRR1005-330Y | 33 | ± 15 | 40 | 2.52M | 15.0 | 0.160 | 1.20 | 1.56 | 39 |
| SRR1005-390Y | 39 | ± 15 | 40 | 2.52M | 13.0 | 0.180 | 1.05 | 1.40 | 36 |
| SRR1005-470Y | 47 | ± 15 | 35 | 2.52M | 12.0 | 0.190 | 1.00 | 1.30 | 33 |
| SRR1005-560Y | 56 | ± 15 | 35 | 2.52M | 11.0 | 0.210 | 0.90 | 1.10 | 30 |
| SRR1005-680Y | 68 | ± 15 | 35 | 2.52M | 9.0 | 0.340 | 0.82 | 1.10 | 27 |
| SRR1005-820Y | 82 | ± 15 | 35 | 2.52M | 8.0 | 0.380 | 0.75 | 0.95 | 25 |
| SRR1005-101K | 100 | ± 10 | 35 | 0.796M | 7.5 | 0.420 | 0.68 | 0.90 | 23 |
| SRR1005-121K | 120 | ± 10 | 30 | 0.796M | 7.2 | 0.460 | 0.60 | 0.80 | 20 |
| SRR1005-151K | 150 | ± 10 | 28 | 0.796M | 6.2 | 0.520 | 0.55 | 0.66 | 18 |
| SRR1005-181K | 180 | ± 10 | 28 | 0.796M | 5.8 | 0.700 | 0.50 | 0.65 | 17 |
| SRR1005-221K | 220 | ± 10 | 30 | 0.796M | 5.2 | 0.800 | 0.45 | 0.63 | 15 |
| SRR1005-271K | 270 | ± 10 | 30 | 0.796M | 4.8 | 1.100 | 0.40 | 0.52 | 14 |
| SRR1005-331K | 330 | ± 10 | 30 | 0.796M | 4.5 | 1.200 | 0.35 | 0.48 | 12 |
| SRR1005-391K | 390 | ± 10 | 25 | 0.796M | 4.2 | 1.400 | 0.33 | 0.45 | 11 |
| SRR1005-471K | 470 | ± 10 | 40 | 0.796M | 3.0 | 1.600 | 0.30 | 0.45 | 10 |
| SRR1005-561K | 560 | ± 10 | 40 | 0.796M | 2.7 | 1.800 | 0.28 | 0.42 | 9 |
| SRR1005-681K | 680 | ± 10 | 37 | 0.796M | 2.6 | 2.300 | 0.26 | 0.38 | 9 |
| SRR1005-821K | 820 | ± 10 | 37 | 0.796M | 2.5 | 2.600 | 0.24 | 0.36 | 8 |
| SRR1005-102K | 1000 | ± 10 | 65 | 0.252M | 2.0 | 3.200 | 0.22 | 0.32 | 7 |
| SRR1005-122K | 1200 | ± 10 | 58 | 0.252M | 2.0 | 3.600 | 0.20 | 0.29 | 6 |
| SRR1005-152K | 1500 | ± 10 | 53 | 0.252M | 1.6 | 5.200 | 0.17 | 0.24 | 6 |
| SRR1005-182K | 1800 | ± 10 | 65 | 0.252M | 1.4 | 5.700 | 0.16 | 0.23 | 5 |
| SRR1005-222K | 2200 | ± 10 | 55 | 0.252M | 1.4 | 6.500 | 0.14 | 0.21 | 5 |
| SRR1005-272K | 2700 | ± 10 | 55 | 0.252M | 1.2 | 8.600 | 0.12 | 0.18 | 4 |
| SRR1005-332K | 3300 | ± 10 | 50 | 0.252M | 1.2 | 10.00 | 0.10 | 0.17 | 4 |

**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.

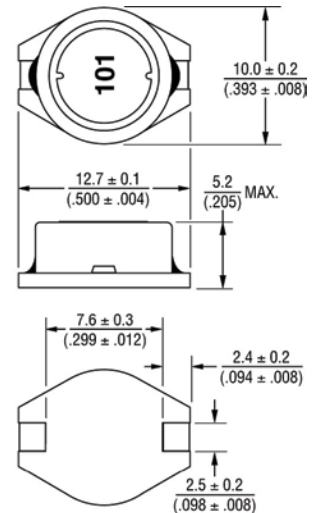
General Specifications

Test Voltage 1 V
 Reflow Soldering .. 250 °C, 10 sec. max.
 (In compliance with JEDEC,
 J-STD-020C, Table 4-2)
 Operating Temperature
 -40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature
 -40 °C to +125 °C
 Resistance to Soldering Heat
 250 °C, 10 sec. max.

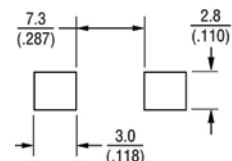
Materials

Core Ferrite DR & RI core
 Wire Enameled copper
 Base DAP
 Terminal Cu/Ni/Sn
 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



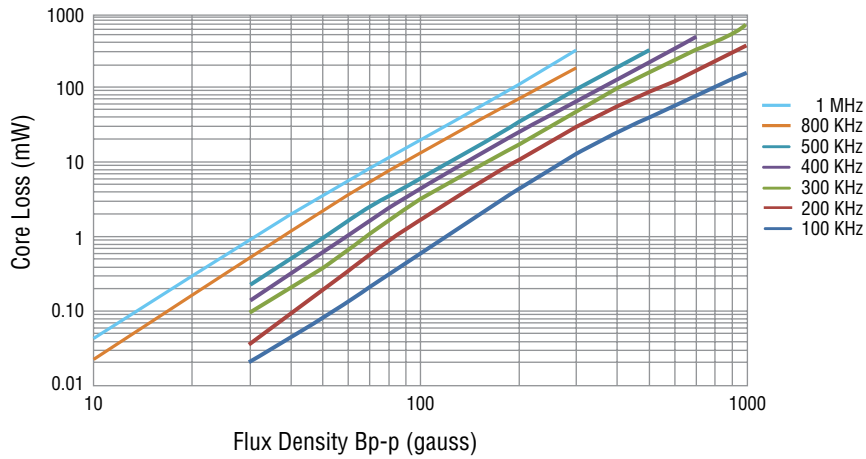
DIMENSIONS: $\frac{MM}{(INCHES)}$

*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.

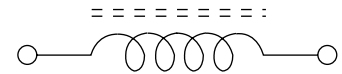
SRR1005 Series - Shielded Power Inductors



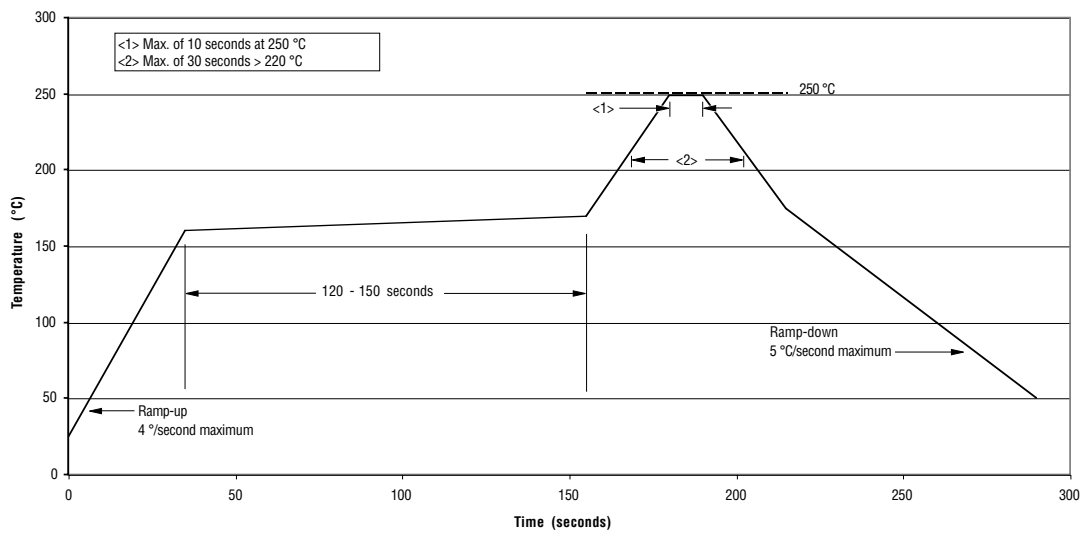
Core Loss vs. Flux Density



Schematic



Soldering Profile

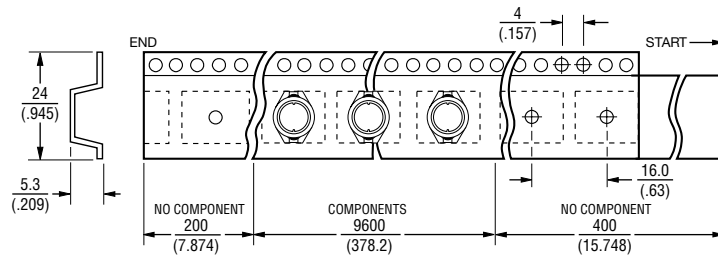
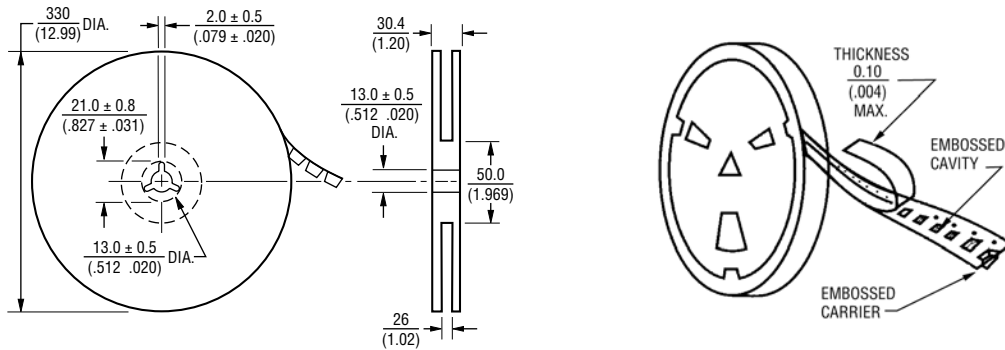


Specifications are subject to change without notice.
 The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
 Users should verify actual device performance in their specific applications.

SRR1005 Series - Shielded Power Inductors

BOURNS®

Packaging Specifications



USER DIRECTION OF FEED

QTY: 600 PCS. PER REEL

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

REV. 03/17

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.