



**THE DATASHEET OF
SRR0603-220ML**





Features

- Available in E6 series
- Low unit height of 3.3 mm
- High current
- RoHS compliant*

Applications

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

SRR0603 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. % | | | | | | | |
| SRR0603-1R5ML | 1.5 | ± 20 | 20 | 7.96 | 95.0 | 0.032 | 2.20 | 3.50 | 424 |
| SRR0603-2R5ML | 2.5 | ± 20 | 19 | 7.96 | 90.0 | 0.040 | 2.00 | 2.95 | 335 |
| SRR0603-3R3ML | 3.3 | ± 20 | 16 | 7.96 | 85.0 | 0.055 | 1.80 | 2.60 | 303 |
| SRR0603-4R7ML | 4.7 | ± 20 | 13 | 7.96 | 45.0 | 0.070 | 1.60 | 2.20 | 255 |
| SRR0603-6R8ML | 6.8 | ± 20 | 13 | 7.96 | 32.0 | 0.100 | 1.20 | 1.75 | 205 |
| SRR0603-100ML | 10 | ± 20 | 16 | 2.52 | 25.0 | 0.12 | 1.10 | 1.50 | 172 |
| SRR0603-150ML | 15 | ± 20 | 16 | 2.52 | 25.0 | 0.18 | 0.90 | 1.20 | 135 |
| SRR0603-220ML | 22 | ± 20 | 16 | 2.52 | 20.0 | 0.27 | 0.70 | 1.05 | 112 |
| SRR0603-330KL | 33 | ± 10 | 15 | 2.52 | 16.0 | 0.43 | 0.60 | 0.83 | 92 |
| SRR0603-470KL | 47 | ± 10 | 13 | 2.52 | 13.0 | 0.55 | 0.50 | 0.73 | 77 |
| SRR0603-680KL | 68 | ± 10 | 11 | 2.52 | 10.0 | 0.90 | 0.40 | 0.53 | 64 |
| SRR0603-101KL | 100 | ± 10 | 22 | 0.796 | 9.0 | 1.50 | 0.30 | 0.44 | 53 |
| SRR0603-151KL | 150 | ± 10 | 22 | 0.796 | 8.0 | 1.90 | 0.25 | 0.39 | 43 |
| SRR0603-221KL | 220 | ± 10 | 20 | 0.796 | 5.0 | 2.70 | 0.20 | 0.31 | 36 |
| SRR0603-331KL | 330 | ± 10 | 18 | 0.796 | 4.5 | 4.20 | 0.18 | 0.24 | 30 |
| SRR0603-471KL | 470 | ± 10 | 17 | 0.796 | 4.0 | 6.70 | 0.15 | 0.19 | 25 |
| SRR0603-681KL | 680 | ± 10 | 13 | 0.796 | 3.5 | 10.50 | 0.12 | 0.15 | 20 |
| SRR0603-102KL | 1000 | ± 10 | 20 | 0.252 | 3.0 | 14.00 | 0.10 | 0.13 | 17 |

**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.

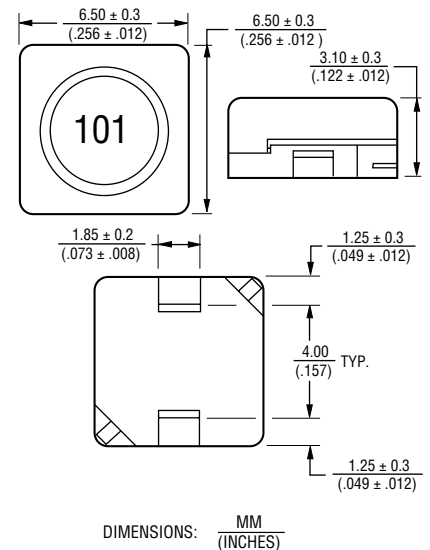
General Specifications

Test Voltage 1 Volt
 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

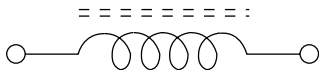
Materials

Core Ferrite DR & RI
 Wire Enameled copper
 Base LCP E4008
 Terminal Cu/Ni/Sn
 Rated Current
 Ind. drop of 10 % typ. at Isat
 Temp. Rise 40 °C max. at rated I rms
 Packaging 1000 pcs. per reel

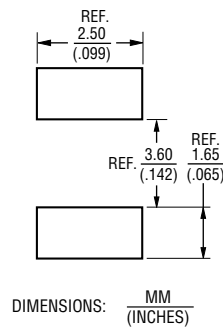
Product Dimensions



Schematic



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. Specifications are subject to change without notice.

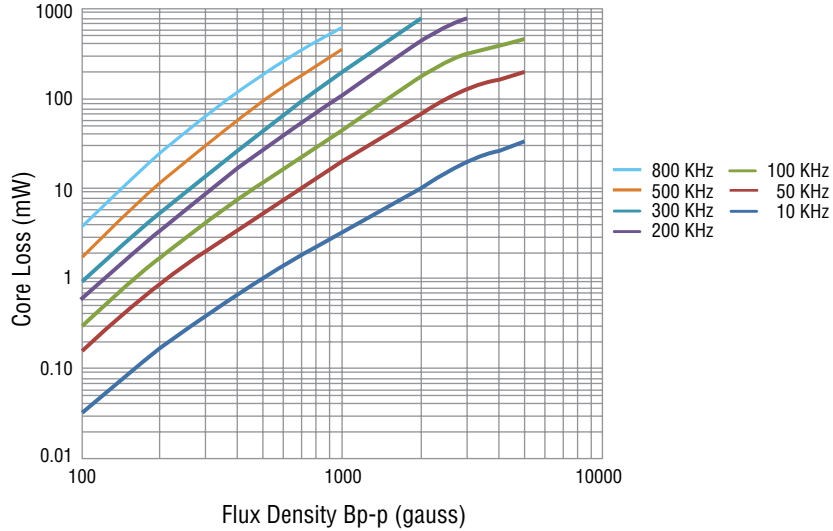
Users should verify actual device performance in their specific applications.

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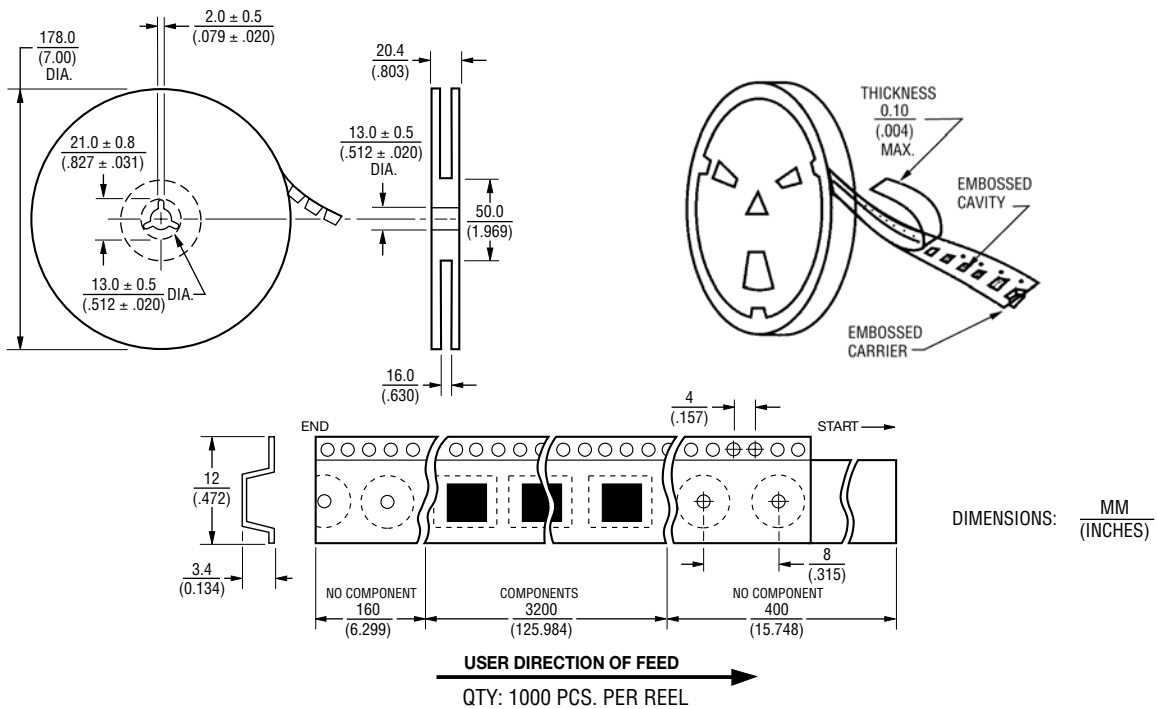
SRR0603 Series - Shielded Power Inductors

BOURNS®

Core Loss vs. Flux Density



Packaging Specifications



REV. 04/19

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