



Features

- Height of 4.0 mm max.
- Current rating up to 3.5 A
- RoHS compliant*

Applications

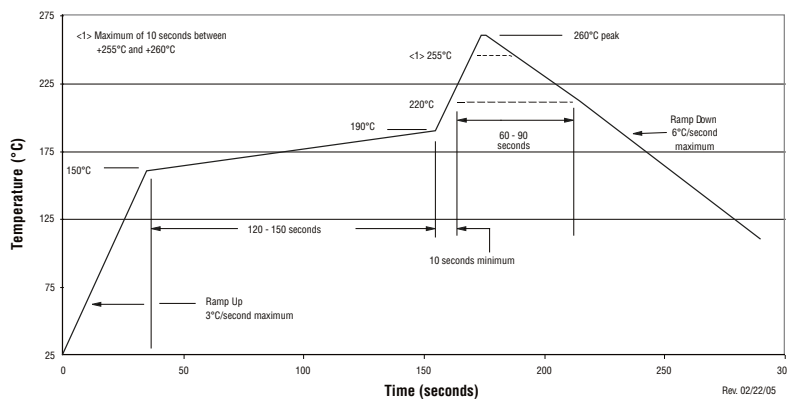
- Input/output of DC/DC converters
- Power supplies for:
 - Portable communication equipment
 - Camcorders
 - LCD TVs

SRR6038 Series - Shielded SMD Power Inductors

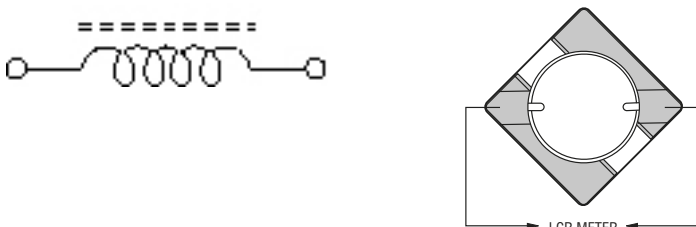
Electrical Characteristics

| Bourns Part Number | Inductance 100 kHz | | Q Ref. | Test Frequency (MHz) | SRF Typ. (MHz) | DCR Max. (mΩ) | I rms (A) | I sat (A) |
|--------------------|--------------------|--------|--------|----------------------|----------------|---------------|-----------|-----------|
| | (μH) | Tol. % | | | | | | |
| SRR6038-3R3Y | 3.3 | ±30 | 9.8 | 7.96 | 75.9 | 20 | 3.50 | 3.60 |
| SRR6038-5R0Y | 5.0 | ±30 | 8.9 | 7.96 | 42.6 | 24 | 2.90 | 2.95 |
| SRR6038-6R2Y | 6.2 | ±30 | 9.0 | 7.96 | 42.3 | 27 | 2.50 | 2.60 |
| SRR6038-7R4Y | 7.4 | ±30 | 7.5 | 7.96 | 32.9 | 31 | 2.30 | 2.55 |
| SRR6038-8R2Y | 8.2 | ±30 | 7.4 | 7.96 | 29.6 | 34 | 2.20 | 2.45 |
| SRR6038-8R7Y | 8.7 | ±30 | 7.3 | 7.96 | 27.5 | 34 | 2.20 | 2.35 |
| SRR6038-100Y | 10 | ±30 | 8.8 | 2.52 | 24.9 | 38 | 2.00 | 2.05 |
| SRR6038-120Y | 12 | ±30 | 8.3 | 2.52 | 17.9 | 53 | 1.70 | 1.95 |
| SRR6038-150Y | 15 | ±30 | 8.6 | 2.52 | 18.0 | 57 | 1.60 | 1.90 |
| SRR6038-180Y | 18 | ±30 | 8.0 | 2.52 | 13.8 | 92 | 1.50 | 1.70 |
| SRR6038-220Y | 22 | ±30 | 8.8 | 2.52 | 13.9 | 96 | 1.30 | 1.60 |
| SRR6038-270Y | 27 | ±30 | 7.7 | 2.52 | 12.5 | 109 | 1.20 | 1.30 |
| SRR6038-330Y | 33 | ±30 | 8.6 | 2.52 | 12.5 | 124 | 1.10 | 1.20 |
| SRR6038-390Y | 39 | ±30 | 8.3 | 2.52 | 11.8 | 138 | 1.00 | 1.10 |
| SRR6038-470Y | 47 | ±30 | 8.5 | 2.52 | 10.4 | 155 | 0.95 | 1.00 |
| SRR6038-560Y | 56 | ±30 | 8.2 | 2.52 | 8.8 | 202 | 0.85 | 0.90 |
| SRR6038-680Y | 68 | ±30 | 7.4 | 2.52 | 7.5 | 234 | 0.75 | 0.87 |
| SRR6038-820Y | 82 | ±30 | 7.6 | 2.52 | 7.6 | 324 | 0.70 | 0.75 |
| SRR6038-101Y | 100 | ±30 | 6.7 | 0.796 | 6.2 | 358 | 0.65 | 0.68 |

Soldering Profile



Electrical Schematic



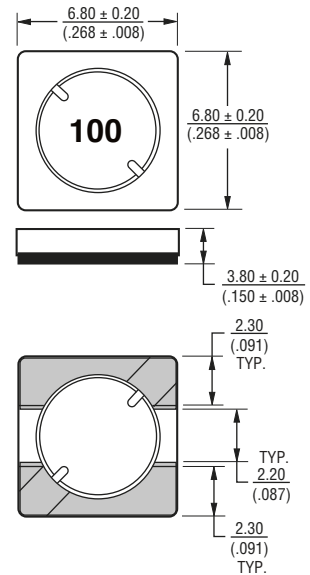
General Specifications

Test Voltage 0.1 V
 Reflow Soldering...230 °C, 50 sec. max.
 Operating Temp.....-40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature..-40 °C to +125 °C
 Resistance to Soldering Heat
 260 °C for 10 sec.
 Moisture Sensitivity Level..... 1
 ESD Classification (HBM).....N/A

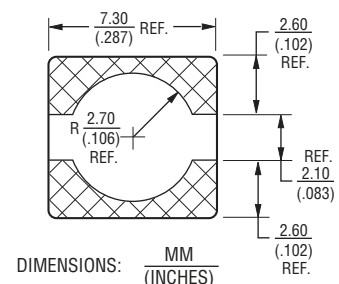
Materials

Core Ferrite
 Wire Enameled copper
 Adhesive.....Epoxy resin
 Terminal..... Ag/Ni/Sn
 Rated Current
 Ind. drop 35 % typ. at Isat
 Temperature Rise..... 30 °C typ.
 at rated Irms
 Packaging..... 1000 pcs. per reel

Product Dimensions



Recommended Layout



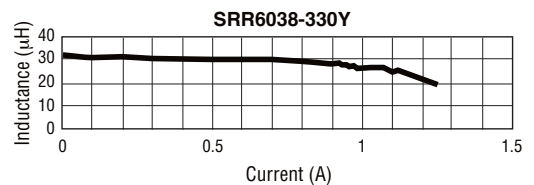
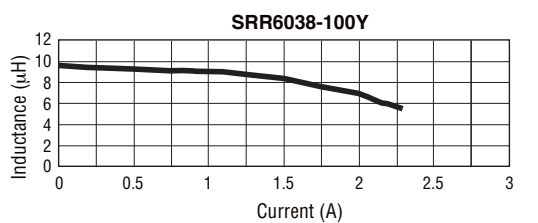
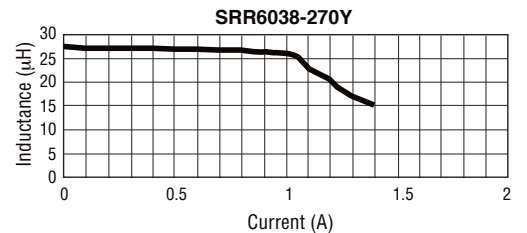
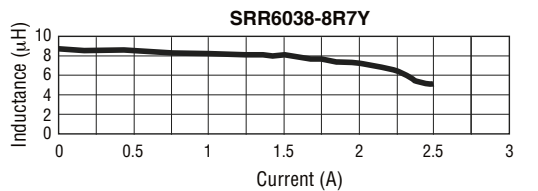
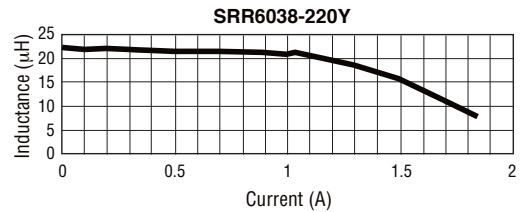
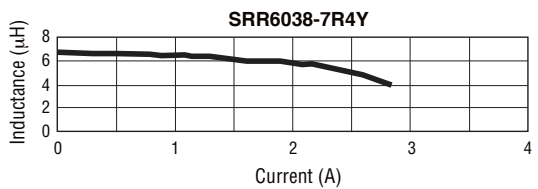
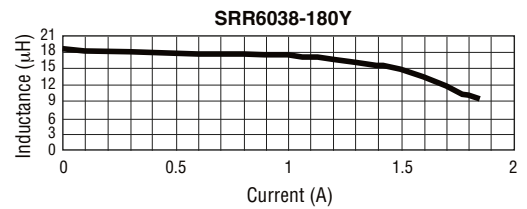
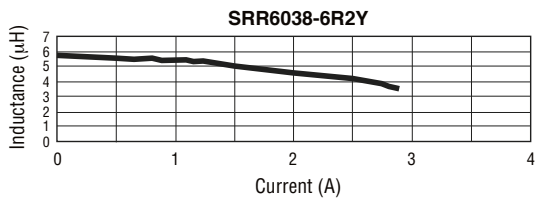
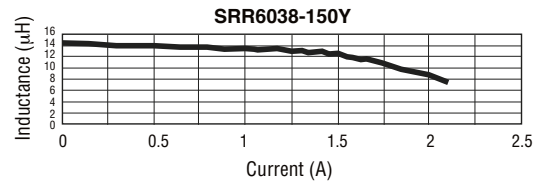
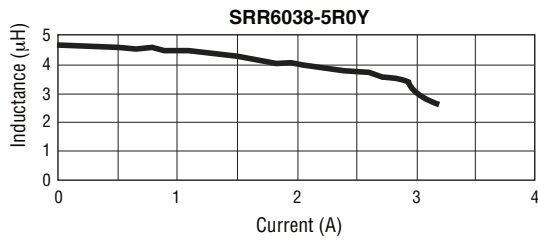
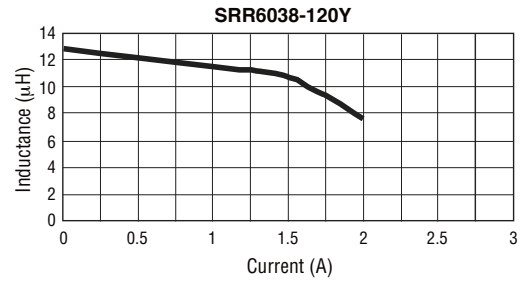
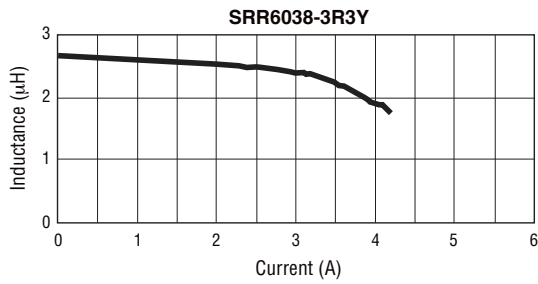
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

* 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. 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

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Inductance vs. Current

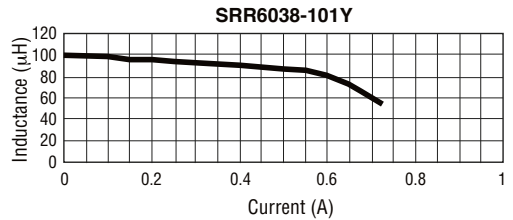
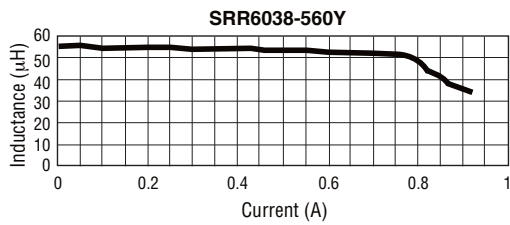
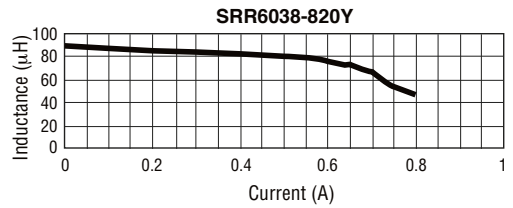
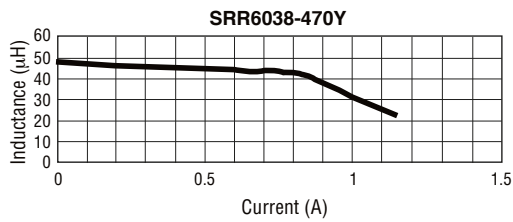
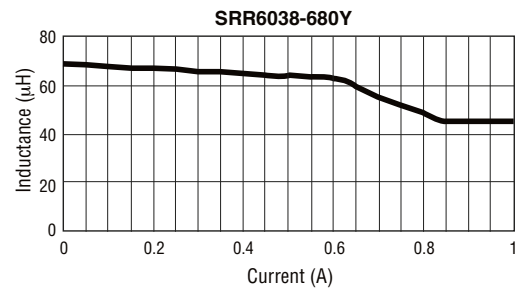
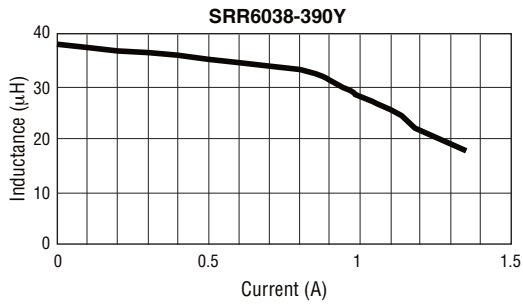


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Inductance vs. Current



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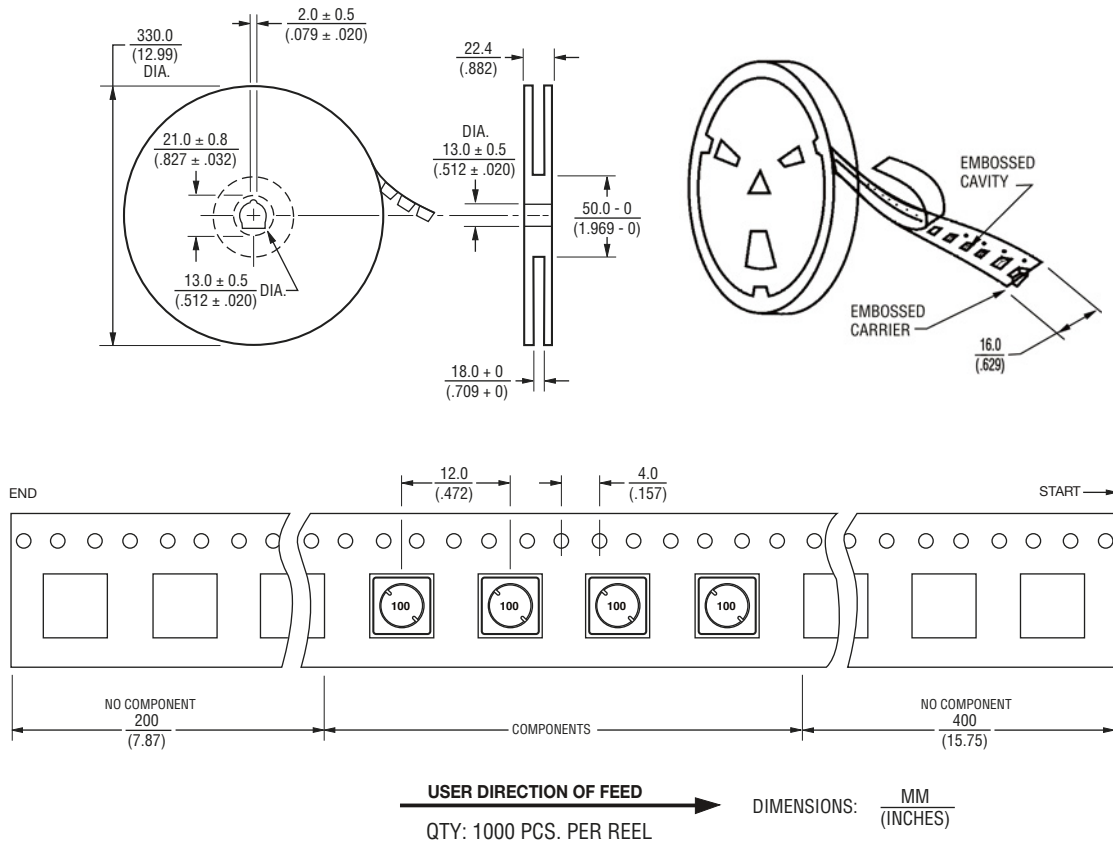
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Packaging Specifications



REV. 03/18

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