



**THE DATASHEET OF
SRE6603-103M**





Features

- Unit height of 2.9 mm
- Inductance range: 1500 to 10,000 μ H
- Rated current up to 0.12 A
- RoHS compliant*

Applications

- DC/DC converters
- Power supplies for:
 - Portable communication equipment
 - Laptop computers
 - Camcorders, HDTV

BOURNS®

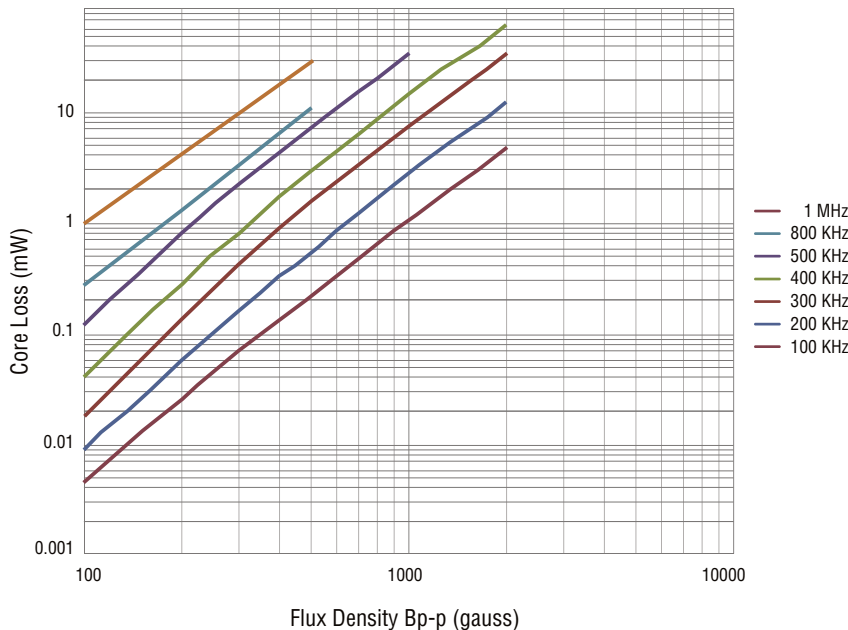
SRE6603 Series - Shielded SMD Power Inductors

Electrical Characteristics

| Bourns Part No. | Inductance @ 100 KHz L (μ H) ± 20 % | Q (Ref.) | Test Freq. (KHz) | SRF (MHz) Typ. | DCR (Ω) Max. | I rms (A) | I sat (A) | **K -Factor |
|-----------------|--|----------|------------------|----------------|-----------------------|-----------|-----------|-------------|
| SRE6603-152M | 1500 | 50 | 100 | 2 | 4.2 | 0.12 | 0.035 | 82 |
| SRE6603-222M | 2200 | 50 | 100 | 2 | 8.5 | 0.10 | 0.028 | 68 |
| SRE6603-332M | 3300 | 50 | 100 | 1 | 11 | 0.08 | 0.024 | 53 |
| SRE6603-472M | 4700 | 50 | 100 | 1 | 13.9 | 0.06 | 0.021 | 48 |
| SRE6603-682M | 6800 | 50 | 100 | 1 | 25 | 0.04 | 0.019 | 37 |
| SRE6603-103M | 10,000 | 50 | 100 | 0.8 | 32.8 | 0.02 | 0.017 | 31 |

**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.

Core Loss vs. Flux Density



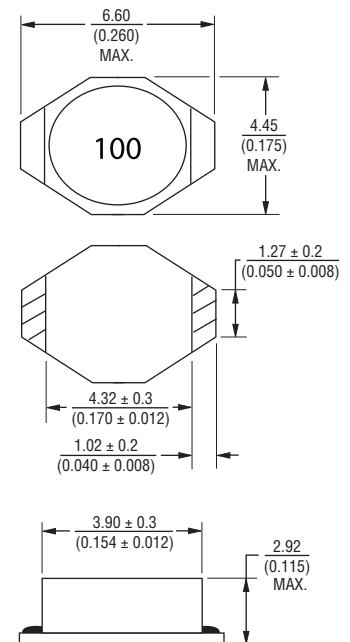
General Specifications

Test Voltage 0.1 V
 Reflow Soldering ... 230 °C, 50 sec max.
 Operating Temperature -25 °C to +105 °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

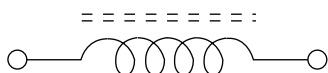
Core Ferrite
 Wire Enameled copper
 Base Ceramic
 Adhesive Epoxy resin
 Terminal Ag/Ni/Au
 Rated Current Ind. drop of 30 % typ. at Isat
 Temperature Rise ... 40 °C typical at Irms
 Packaging 2000 pcs. per 13-inch reel

Product Dimensions

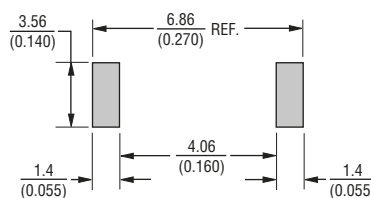


DIMENSIONS: $\frac{MM}{(INCHES)}$

Schematic



Recommended Layout



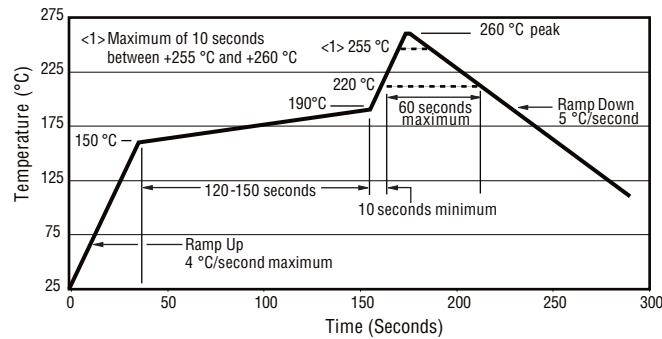
WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
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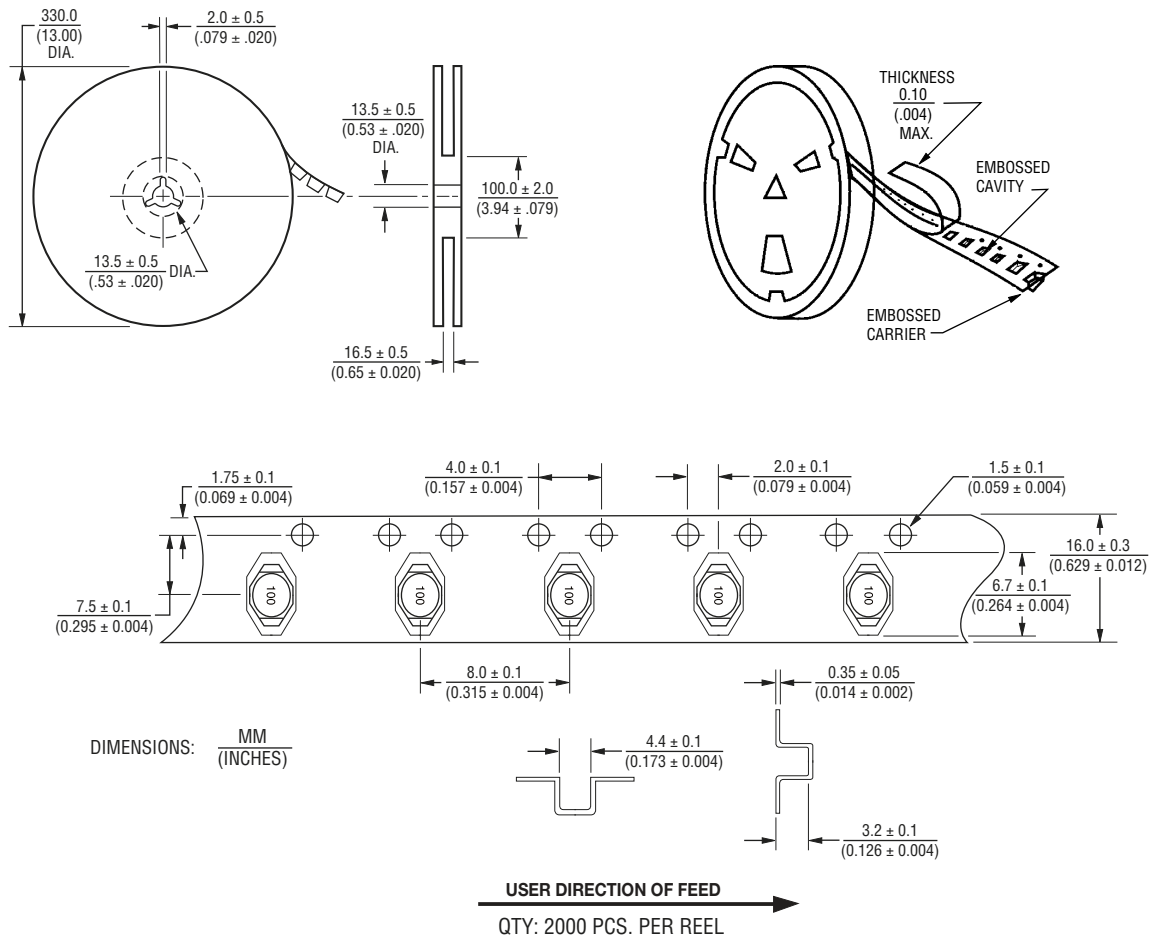
SRE6603 Series - Shielded SMD Power Inductors

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Soldering Profile



Packaging Specifications



REV. 03/18

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