



### Features

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

### Applications

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

## SRE6603 Series - Shielded SMD Power Inductors

### Electrical Characteristics

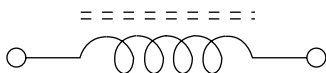
Bourns Part No.	Inductance @ 100 KHz L ( $\mu$ H) $\pm 20\%$	Q (Ref.)	Test Freq. (KHz)	SRF (MHz) Typ.	DCR ( $\Omega$ ) Max.	I rms (A)	I sat (A)	**K -Factor
SRE6603-152M	1500	50	100	2	4.2	0.12	0.035	82
SRE6603-222M	2200	50	100	2	8.5	0.10	0.028	68
SRE6603-332M	3300	50	100	1	11	0.08	0.024	53
SRE6603-472M	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.

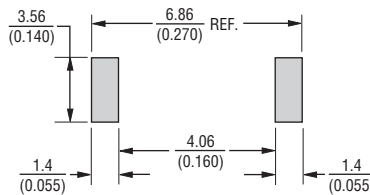
### Core Loss vs. Flux Density



### Schematic



### Recommended Layout



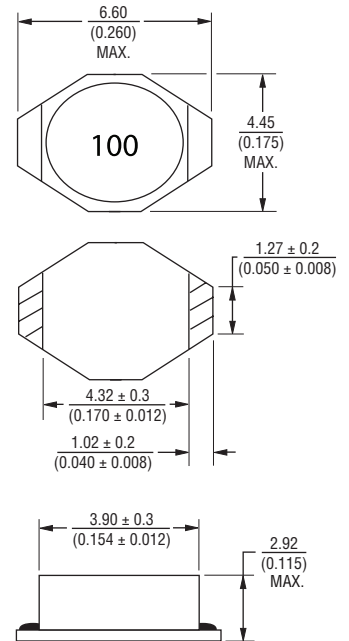
### General Specifications

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

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

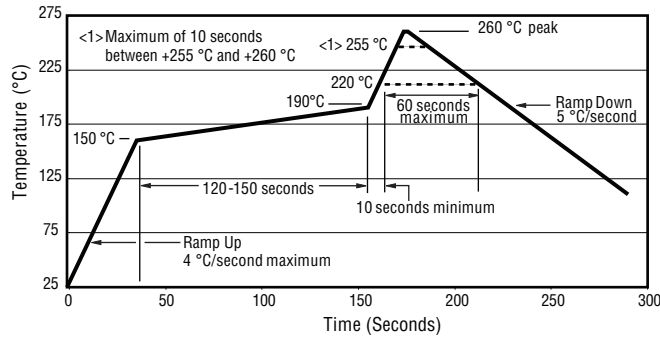
Specifications are subject to change without notice.

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.

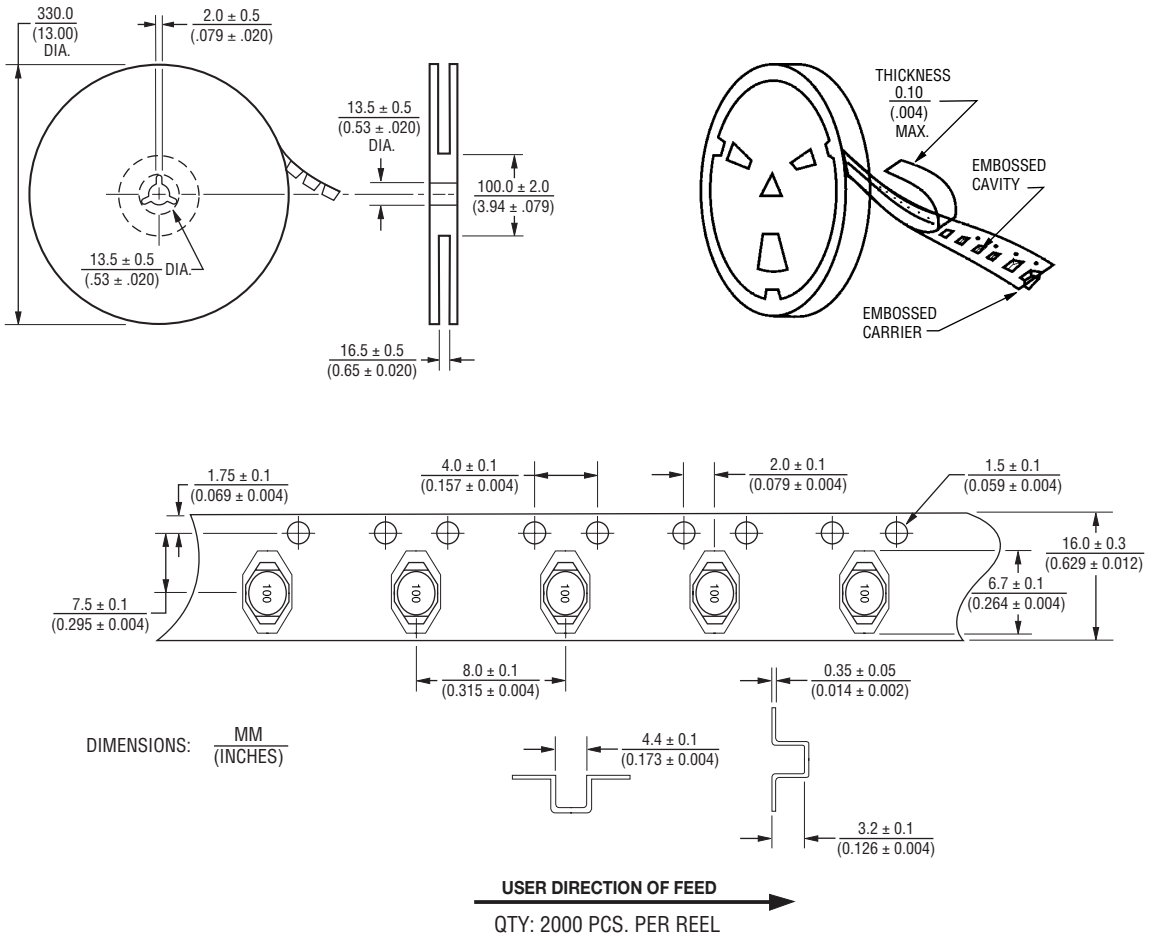
# SRE6603 Series - Shielded SMD Power Inductors

**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 03/18

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