

Features

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

Applications

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

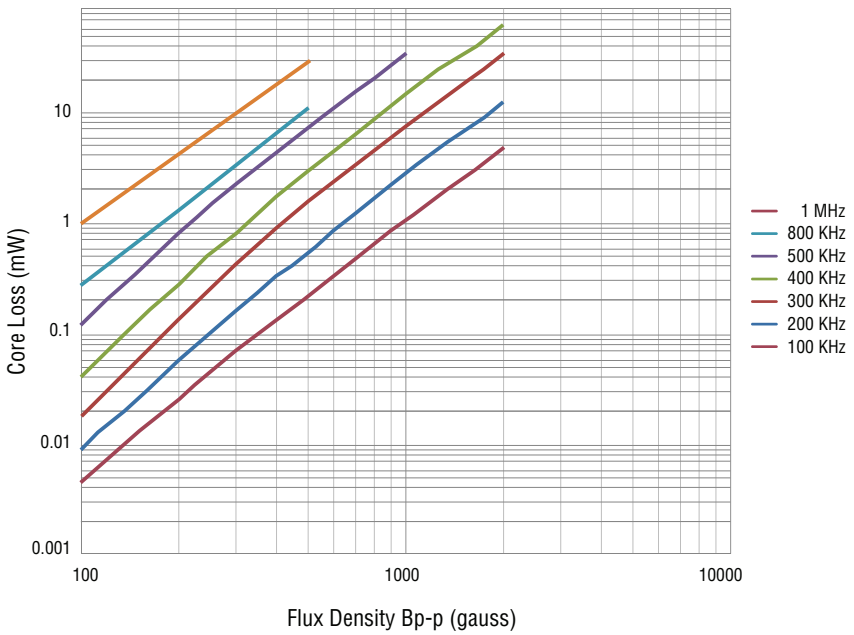
SRE6603 Series - Shielded SMD Power Inductors

Electrical Characteristics

Bourns Part No.	Inductance @ 100 KHz L (μH) ±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, Bp-p (gauss) = K x L(μH) x Δ I (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

Core Loss vs. Flux Density



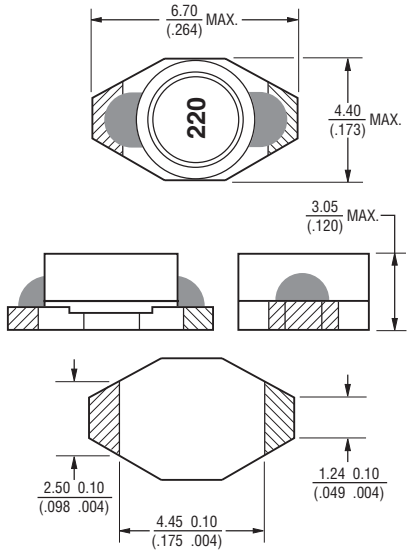
General Specifications

Test Voltage .....0.1 V
Reflow Soldering ... 230 °C, 50 sec max.
Operating Temperature
.....-55 °C to +125 °C
(Temperature rise included)
Storage Temperature
.....-55 °C to +125 °C
Moisture Sensitivity Level.....1
ESD Classification (HBM)..... N/A

Materials

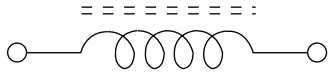
Core.....Ferrite
Wire .....Enameled copper
Base .....Ceramic
Adhesive..... Epoxy resin
Terminal .....Ag/Ni/Au
Rated Current
.....Ind. drop of 30 % typ. at Isat
Temperature Rise ..... 30 °C max. at Irms
Packaging..... 2000 pcs. per 13-inch reel

Product Dimensions



DIMENSIONS: MM (INCHES)

Schematic

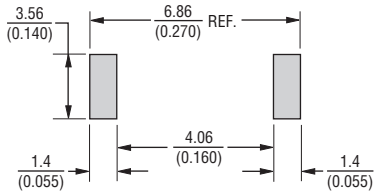


Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Recommended Layout

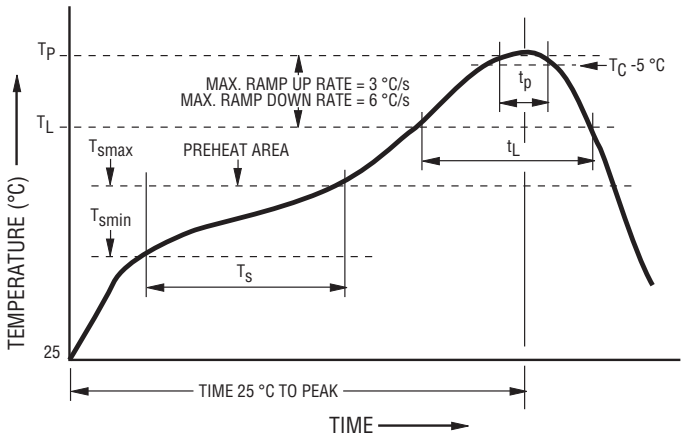


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*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Specifications are subject to change without notice.
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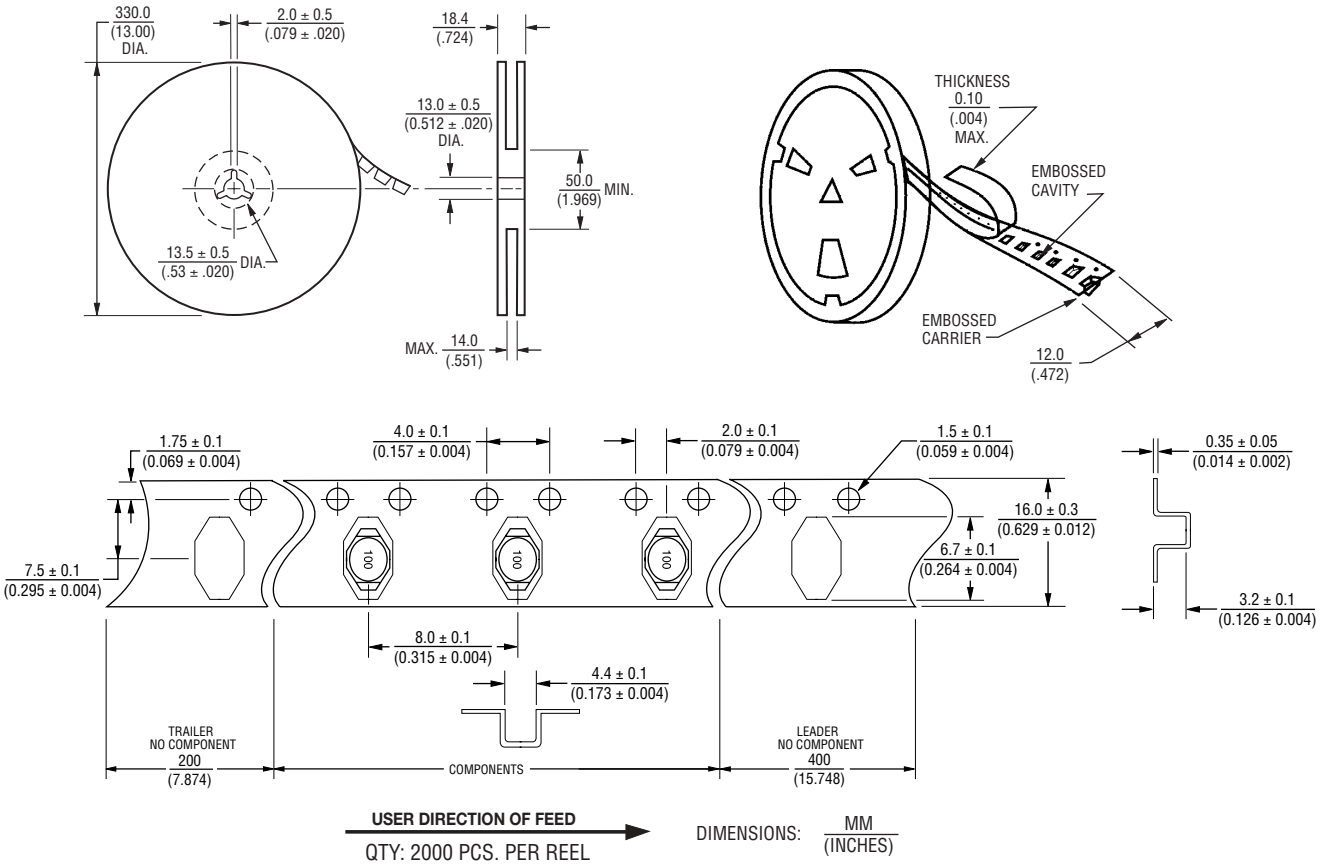
Soldering Profile



Profile Feature	Pb-Free Assembly
Preheat / Soak: Temperature Min. (T_{smin}) Temperature Max. (T_{smax}) Time (t_s) from (T_{smin} to T_{smax})	 150 °C 200 °C 60~120 seconds
Ramp Up Rate (T_L to T_p)	3 °C / second max.
Liquidous Temperature (T_L) Time (t_L) maintained above T_L	217 °C 60~150 seconds
Classification Temperature (T_c)	250 °C
Time (t_p) within 5 °C of the specified classification temperature (T_c)	< 30 seconds
Ramp Down Rate (T_p to T_L)	6 °C / second max.
Time 25 °C to Peak Temperature	8 minutes max.

NOTE: The product has been tested under this reflow condition. Deviations from this, especially higher temperatures or longer durations, could impact performance.

Packaging Specifications



REV. 02/26

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