**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

### Electrical Characteristics

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 100 KHz L (μH) ±20%</th>
<th>Test Freq. (KHz)</th>
<th>SRF (MHz) Typ.</th>
<th>DCR (Ω) Max.</th>
<th>I rms (A)</th>
<th>I sat (A)</th>
<th><strong>K-Factor</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>SRE6603-152M</td>
<td>1500</td>
<td>50</td>
<td>100</td>
<td>2</td>
<td>4.2</td>
<td>0.12</td>
<td>0.035</td>
</tr>
<tr>
<td>SRE6603-222M</td>
<td>2200</td>
<td>50</td>
<td>100</td>
<td>2</td>
<td>8.5</td>
<td>0.10</td>
<td>0.028</td>
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<tr>
<td>SRE6603-332M</td>
<td>3300</td>
<td>50</td>
<td>100</td>
<td>1</td>
<td>11</td>
<td>0.08</td>
<td>0.024</td>
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<tr>
<td>SRE6603-472M</td>
<td>4700</td>
<td>50</td>
<td>100</td>
<td>1</td>
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<td>0.06</td>
<td>0.021</td>
</tr>
<tr>
<td>SRE6603-682M</td>
<td>6800</td>
<td>50</td>
<td>100</td>
<td>1</td>
<td>25</td>
<td>0.04</td>
<td>0.019</td>
</tr>
<tr>
<td>SRE6603-103M</td>
<td>10,000</td>
<td>50</td>
<td>100</td>
<td>0.8</td>
<td>32.8</td>
<td>0.02</td>
<td>0.017</td>
</tr>
</tbody>
</table>

*K-Factor: To calculate core flux density, Bp-p (gauss) = K x L(μH) x A I (peak-to-peak ripple current, A), determine core loss from Core Loss vs. Flux Density plot.

### Core Loss vs. Flux Density

![Core Loss vs. Flux Density graph](image)

### Schematic

![Schematic](image)

### Recommended Layout

![Recommended Layout](image)

### 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
- Moisture Sensitivity Level: 1
- ESD Classification (HBM): N/A

### Materials
- Core: Ferrite
- Wire: Enamelled copper
- Base: Ceramic
- Adhesive: Epoxy resin
- Terminal: Ag/Ni/Au

### Ratings and Requirements
- Rated Current: Ind. drop of 30% typ. at Isat
- Temperature Rise: 40 °C typical at Irms
- Packaging: 2000 pcs. per 13-inch reel

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**WARNING** Cancer and Reproductive Harm

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)
### SRE6603 Series - Shielded SMD Power Inductors

#### Soldering Profile

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>Time (Seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>75</td>
<td>50</td>
</tr>
<tr>
<td>125</td>
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<tr>
<td>175</td>
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<tr>
<td>225</td>
<td>200</td>
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<tr>
<td>220</td>
<td>250</td>
</tr>
<tr>
<td>220</td>
<td>300</td>
</tr>
</tbody>
</table>

<1> Maximum of 10 seconds between +255 °C and +260 °C
<1> 255 °C

#### Packaging Specifications

**Dimensions:**
- **DIA.**
- **THICKNESS**
- **EMBOSSED CAVITY**
- **EMBOSSED CARRIER**

**Thermal Cycle Specifications:**
- **Ramp Up:** 4 °C/second maximum, 10 seconds minimum
- **Ramp Down:** 5 °C/second maximum
- Maximum of 10 seconds between +255 °C and +260 °C
- 255 °C peak

**DIA.:**
- 13.5 ± 0.5
- 0.53 ± 0.020

**Thickness:**
- 0.10 ± 0.004

**QTY:** 2000 PCS. PER REEL

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