**Features**
- Semi-shielded construction
- Inductance range: 0.47 to 10 µH
- Rated current up to 1.45 A
- AEC-Q200 qualified
- Low profile: 0.8 mm max.
- RoHS compliant* and halogen free**

**SRN2508A Series - Semi-shielded Power Inductors**

**Electrical Specifications @ 25 °C**

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 1 MHz / 0.1 V</th>
<th>Q @ 1 MHz</th>
<th>SRF (MHz)</th>
<th>DCR (Ω)</th>
<th>Irms (A)</th>
<th>Isat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRN2508A-R47M</td>
<td>0.47 ±20</td>
<td>10</td>
<td>340</td>
<td>0.080</td>
<td>1.45</td>
<td>2.50</td>
</tr>
<tr>
<td>SRN2508A-R68M</td>
<td>0.68 ±20</td>
<td>10</td>
<td>270</td>
<td>0.100</td>
<td>1.35</td>
<td>2.05</td>
</tr>
<tr>
<td>SRN2508A-1R0M</td>
<td>1.0 ±20</td>
<td>10</td>
<td>220</td>
<td>0.120</td>
<td>1.20</td>
<td>1.75</td>
</tr>
<tr>
<td>SRN2508A-1R5M</td>
<td>1.5 ±20</td>
<td>10</td>
<td>180</td>
<td>0.170</td>
<td>1.05</td>
<td>1.65</td>
</tr>
<tr>
<td>SRN2508A-2R2M</td>
<td>2.2 ±20</td>
<td>10</td>
<td>140</td>
<td>0.210</td>
<td>0.95</td>
<td>1.40</td>
</tr>
<tr>
<td>SRN2508A-3R3M</td>
<td>3.3 ±20</td>
<td>10</td>
<td>110</td>
<td>0.300</td>
<td>0.85</td>
<td>1.10</td>
</tr>
<tr>
<td>SRN2508A-4R7M</td>
<td>4.7 ±20</td>
<td>10</td>
<td>90</td>
<td>0.400</td>
<td>0.70</td>
<td>0.90</td>
</tr>
<tr>
<td>SRN2508A-6R8M</td>
<td>6.8 ±20</td>
<td>10</td>
<td>80</td>
<td>0.670</td>
<td>0.55</td>
<td>0.75</td>
</tr>
<tr>
<td>SRN2508A-100M</td>
<td>10 ±20</td>
<td>10</td>
<td>50</td>
<td>0.930</td>
<td>0.45</td>
<td>0.55</td>
</tr>
</tbody>
</table>

**Materials**
- Core: Ferrite
- Wire: Enameled copper
- Terminal Finish: Sn coating
- Packaging: 2000 pcs. per 7-inch reel

**Applications**
- Automotive systems:
  - Driver assistant
  - Infotainment
  - Lighting
- DC/DC converters
- Power supplies
- Wearable devices
- HDD, SSDs
- Smartphones
- LCD displays

**General Specifications**

- **Operating Temperature**: -55 °C to +125 °C (Temperature rise included)
- **Storage Temperature (Component)**: -55 °C to +125 °C
- **Temperature Rise**: 40 °C at rated Irms
- **Inductance drops 30 % at Isat**
- **Moisture Sensitivity Level**: 1
- **ESD Classification (HBM)**: N/A

**Recommended Layout**

**Recommended Layout**


**Bourns considers a product to be “halogen free” if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less. 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.
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Inductance vs. Current

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