Features
- Wirewound construction
- Iron powder core
- Magnetically shielded construction provides low radiation
- Low DC resistance
- Low profile
- RoHS compliant*

Applications
- DC/DC converters for:
  - Smart phones
  - DVC/DSCs
  - Tablets
  - HDD/SSDs
  - Mobile electronic devices

---

**SRP2512 Series - SMD Power Inductors**

**Electrical Specifications @ 25 °C**

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 1 MHz / 1 V</th>
<th>DCR (mΩ) Max.</th>
<th>Irms (A)</th>
<th>Isat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP2512-R47M</td>
<td>0.47</td>
<td>20</td>
<td>4.5</td>
<td>5.3</td>
</tr>
<tr>
<td>SRP2512-R68M</td>
<td>0.68</td>
<td>20</td>
<td>3.7</td>
<td>4.1</td>
</tr>
<tr>
<td>SRP2512-1R0M</td>
<td>1.00</td>
<td>20</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>SRP2512-1R5M</td>
<td>1.50</td>
<td>20</td>
<td>2.5</td>
<td>3.2</td>
</tr>
<tr>
<td>SRP2512-2R2M</td>
<td>2.20</td>
<td>20</td>
<td>2.1</td>
<td>3.0</td>
</tr>
</tbody>
</table>

How to Order
SRP2512-1R0M

Electrical Schematic

---

**General Specifications**

Inductance Test Frequency ... 1 MHz/1 V
Operating Temperature
-40 °C to +125 °C (Temperature rise included)
Storage Temperature
-50 °C to +125 °C
Rated Current
- Inductance drops 30 % at Isat
Temperature Rise ..40 °C at rated Irms
Resistance to Soldering Heat...+260 °C

**Materials**
Core.........................Iron powder
Terminal........................Ni/Sn
Packaging...... 3000 pcs. per 7-inch reel

**Soldering Profile**

<table>
<thead>
<tr>
<th>Profile Feature</th>
<th>Pb Free Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Ramp Rate (T_{Smax} to Tp)</td>
<td>3 °C/second max.</td>
</tr>
<tr>
<td>Preheat - Temperature Min. (T_{Smin})</td>
<td>150 °C</td>
</tr>
<tr>
<td>- Temperature Max. (T_{Smax})</td>
<td>200 °C</td>
</tr>
<tr>
<td>- Time (T_{Smin} to T_{Smax})</td>
<td>60-180 seconds</td>
</tr>
<tr>
<td>Time Maintained Above</td>
<td></td>
</tr>
<tr>
<td>- Temperature (T_L)</td>
<td>217 °C</td>
</tr>
<tr>
<td>- Time (T_L)</td>
<td>60-150 seconds</td>
</tr>
<tr>
<td>Peak Temperature (T_p)</td>
<td>260 °C +0/-5 °C</td>
</tr>
<tr>
<td>Time within 5 °C of Actual Peak Temperature</td>
<td></td>
</tr>
<tr>
<td>(T_p)</td>
<td>20-40 seconds</td>
</tr>
<tr>
<td>Ramp-Down Rate</td>
<td>6 °C/second max.</td>
</tr>
<tr>
<td>Time 25 °C to Peak Temperature</td>
<td>8 minutes max.</td>
</tr>
</tbody>
</table>

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**Product Dimensions**

---

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

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SRP2512 Series - SMD Power Inductors

L vs. I Charts

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Packaging Specifications

Dimensions (MM):

- 2.5 ± 0.1 (.098 ± .004)
- 4.0 ± 0.1 (.157 ± .004)
- 5.0 ± 0.1 (.197 ± .004)
- 9.0 ± 0.5 (.354 ± .020)
- 10.0 ± 0.15 (.472 ± .006)

Dimensions (INCHES):

- 0.25 ± 0.05 (.010 ± .002)
- 1.55 ± 0.05 (.061 ± .002)
- 3.0 ± 0.1 (.118 ± .004)
- 1.6 ± 0.10 (.063 ± .004)
- 2.5 ± 0.1 (.098 ± .004)
- 4.0 ± 0.1 (.157 ± .004)

QTY: 3,000 PCS. PER REEL

USER DIRECTION OF FEED

DIMENSIONS: MM (INCHES)

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