Features
- Shielded construction
- Unit height of 4 mm
- Inductance range: 0.5 to 1.8 μH
- Current up to 13 A
- RoHS compliant*

Applications
- Input/output of DC/DC converters
- Power supplies for:
  - Portable communications equipment
  - Camcorders
  - LCD TVs

SRP1204 Series - Shielded Power Inductors

Electrical Specifications

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Initial Inductance L0 (μH)</th>
<th>Inductance at Flat Point L1 (μH)</th>
<th>Flat Point Ref.</th>
<th>I rms (A)</th>
<th>I sat (A)</th>
<th>DCR (mΩ) Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP1204-R50M</td>
<td>0.75 ±20 %</td>
<td>0.55 ±20 %</td>
<td>2.0</td>
<td>13.0</td>
<td>14.0</td>
<td>3.0</td>
</tr>
<tr>
<td>SRP1204-1R1M</td>
<td>1.30 ±20 %</td>
<td>1.10 ±20 %</td>
<td>2.0</td>
<td>12.0</td>
<td>13.0</td>
<td>4.5</td>
</tr>
<tr>
<td>SRP1204-1R8M</td>
<td>2.00 ±20 %</td>
<td>1.80 ±20 %</td>
<td>2.0</td>
<td>10.0</td>
<td>11.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>

L vs I Charts

DC Current (A)

Electrical Schematic

Recommended Layout

Electrical Schematic

Recommended Layout

Materials
- Core: Ferrite ER
- Wire: Enamelled copper
- Terminal: Cu/Ni/Sn
- Rated Current: Ind. drops 20 % at Isat
- Temperature Rise: 40 °C at rated Irms
- Packaging: 800 pcs. per 13-inch reel

Electrical Schematic

Recommended Layout

Electrical Schematic

Recommended Layout

WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

*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. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf)
SRP1204 Series - Shielded Power Inductors

**Soldering Profile**

<table>
<thead>
<tr>
<th>Temperature Rising Area</th>
<th>Preheat Area</th>
<th>Reflow Area</th>
<th>Forced Cooling Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>+4.0 °C / sec. max.</td>
<td>150-200 °C / 60-120 sec.</td>
<td>+3.0 °C / sec. max.</td>
<td>-(1.0-5.0) °C / sec. max.</td>
</tr>
</tbody>
</table>

**Peak Temperature:** 245 °C max.
**Time Above 245 °C:** 30 sec. max.
**Time Above 217 °C:** 60 ~ 150 sec. max.

**Packaging Specifications**

Temperature (°C) Rising Area Preheat Area Reflow Area Forced Cooling Area

Temperature Rising Area

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Time (Seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>100</td>
</tr>
<tr>
<td>250</td>
<td>150</td>
</tr>
</tbody>
</table>

**Specifications are subject to change without notice.**
Users should verify actual device performance in their specific applications.

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