**Features**
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Flat wire
- RoHS compliant* and halogen free**

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**SRP0512 Series - Shielded Power Inductors**

**Electrical Specifications @ 25 °C**

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 100 kHz / 1 V Q Tytyp.</th>
<th>Q Test Freq. (MHz)</th>
<th>SRF (MHz) Typ.</th>
<th>DCR (mΩ) Typ.</th>
<th>DCR (mΩ) Max.</th>
<th>Irms (A) Typ.</th>
<th>Isat (A) Typ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP0512-R47K</td>
<td>0.47 10 18 25.2 68 13.0 14.9 8.3</td>
<td></td>
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<tr>
<td>SRP0512-R68K</td>
<td>0.68 10 17 25.2 58 15.2 18.0 7.6</td>
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<tr>
<td>SRP0512-1R0K</td>
<td>1.00 10 43 7.96 45 20.5 23.0 6.5</td>
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</tr>
<tr>
<td>SRP0512-1R5K</td>
<td>1.50 10 26 7.96 32 24.5 29.0 6.2</td>
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<td></td>
</tr>
<tr>
<td>SRP0512-2R2K</td>
<td>2.20 10 39 7.96 28 43.3 51.5 4.2</td>
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</tr>
<tr>
<td>SRP0512-3R3K</td>
<td>3.30 10 37 7.96 24 70.0 81.5 3.2</td>
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<tr>
<td>SRP0512-4R7K</td>
<td>4.70 10 32 7.96 19 84.5 100.0 2.1</td>
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<tr>
<td>SRP0512-6R8K</td>
<td>6.80 10 20 7.96 17 148.0 175.0 2.2</td>
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</tr>
<tr>
<td>SRP0512-100K</td>
<td>10.0 10 26 2.52 12 170.0 200.0 2.1</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Product Dimensions**

**Recommended Layout**

**General Specifications**

- Operating Temperature: -40 °C to +125 °C (Temperature rise included)
- Storage Temperature (Component): -40 °C to +125 °C
- Rated Current: Inductance drops 30 % at Isat
- Temperature Rise: 40 °C at rated Irms
- Rated Voltage: 50 V
- Moisture Sensitivity Level: 1
- ESD Classification (HBM): N/A

*Note 1: Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.*

**Materials**

- Core: Metal alloy powder
- Wire: Enamelled copper
- Terminal Finish: Sn

**How to Order**

- SRP0512 - 4R7K

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**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.
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**WARNING**

Cancer and Reproductive Harm

www.P65Warnings.ca.gov
SRP0512 Series - Shielded Power Inductors

L vs. I Charts

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Soldering Profile

Peak Temperature: 260 °C max.
Max. Peak Temperature -5 °C: 30 sec. max.
Max. Time Above 217 °C: 60~150 sec. max.
SRP0512 Series - Shielded Power Inductors

Packaging Specifications

Dimensions:  

<table>
<thead>
<tr>
<th>Component</th>
<th>MIN.</th>
<th>MAX.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter</td>
<td>21 ± 0.8</td>
<td>2.0 ± 0.5</td>
</tr>
<tr>
<td>Diameter</td>
<td>13.5 ± 0.5</td>
<td>50 (1.969)</td>
</tr>
</tbody>
</table>

QTY: 4,000 PCS PER REEL

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EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com  
The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com  
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REV. 02/20

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