SRP0510 Series - Shielded Power Inductors

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

**Electrical Specifications @ 25 °C**

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance L (µH) @ 100 kHz / 1 V</th>
<th>Q Typ.</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>
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<tr>
<td>SRP0510-R47K</td>
<td>0.47</td>
<td>10</td>
<td>21</td>
<td>25.2</td>
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<td>32.5</td>
<td>38.0</td>
<td>5.0</td>
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<td>10</td>
<td>41</td>
<td>7.96</td>
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<td>48.0</td>
<td>57.0</td>
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<tr>
<td>SRP0510-1R5K</td>
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<td>41</td>
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<td>65.0</td>
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<td>39</td>
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<td>SRP0510-100K</td>
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<td>15</td>
<td>290.0</td>
<td>335.0</td>
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</table>

**Product Dimensions**

- **SRP0510 - 4R7K**
- **Product Dimensions**
- **Recommended Layout**
- **Electrical Schematic**

**Additional Information**

- Click these links for more information:
  - PRODUCT
  - TECHNICAL LIBRARY
  - INVENTORY
  - SAMPLES
  - CONTACT

**General Specifications**

- **Operating Temperature**: -40 °C to +125 °C (Temperature rise included)
- **Storage Temperature (Component)**: -40 °C to +125 °C
- **Rated Current**
- **Rated Voltage**: 50 V
- **Moisture Sensitivity Level**: 1
- **ESD Classification (HBM)**: N/A

**Materials**

- Core: Metal alloy powder
- Wire: Enamelled copper
- Terminal Finish: Sn
- Packaging: 4000 pcs. per 13-inch reel

**How to Order**

- **Model**: SRP0510 - 4R7K
- **Value Code**: (see table)

**WARNING**

Cancer and Reproductive Harm

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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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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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.

- Preheat Area: 250 °C / 60-120 Sec.
- Reflow Area: +3.0 °C/Sec. Max
- Forced Cooling Area: < (1.0~5.0) °C/Sec. Max

Peak Temperature: 217 °C
60-150 Sec.
60 Sec. Max.
0-60 Sec.

Temperature (°C)

Time (Seconds)

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Packaging Specifications

Dimensions: MM

User Direction of Feed
QTY: 4,000 PCS PER REEL
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