SRP0610 Series - Shielded Power Inductors

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

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**Electrical Specifications @ 25 °C**

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 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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<tbody>
<tr>
<td>SRP0610-R47K</td>
<td>0.47</td>
<td>10</td>
<td>20</td>
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<td>49</td>
<td>7.96</td>
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<td>74.0</td>
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<td>11</td>
<td>206.0</td>
<td>240.0</td>
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**Product Dimensions**

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**Recommended Layout**

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**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: Enamelled copper

**Packaging**

- 2500 pcs. per 13-inch reel

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**How to Order**

SRP0610 - 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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Cancer and Reproductive Harm  
www.P65Warnings.ca.gov
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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.

Temperature Rising Area
-4 °C/Sec. Max

Preheat Area
150-200 °C / 60-120 Sec.

Reflow Area
+3.0 °C/Sec. Max

Forced Cooling Area
(1.0~5.0) °C/Sec. Max

Temperature (°C)
0 50 100 150 200 250

Time (Seconds)
0 50 100 150 200 250

-217 °C
-60-150 Sec.
-60 Sec. Max.
-60-120 Sec.

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