## SRP0615 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 @ 100 kHz / 1 V</th>
<th>Q Test Freq. (MHz)</th>
<th>SRF (MHz)</th>
<th>DCR (mΩ)</th>
<th>Irms (A)</th>
<th>Isat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP0615-R47K</td>
<td>0.47</td>
<td>10</td>
<td>20</td>
<td>25.2</td>
<td>71</td>
<td>7.5</td>
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<tr>
<td>SRP0615-R68K</td>
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<td>19</td>
<td>25.2</td>
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<td>9.6</td>
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<td>SRP0615-1R0K</td>
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<td>10</td>
<td>54</td>
<td>7.96</td>
<td>40</td>
<td>11.5</td>
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<tr>
<td>SRP0615-1R5K</td>
<td>1.50</td>
<td>10</td>
<td>53</td>
<td>7.96</td>
<td>32</td>
<td>20.5</td>
</tr>
<tr>
<td>SRP0615-2R2K</td>
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<td>10</td>
<td>47</td>
<td>7.96</td>
<td>25</td>
<td>28.7</td>
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<tr>
<td>SRP0615-3R3K</td>
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<td>37.1</td>
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<tr>
<td>SRP0615-4R7K</td>
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<td>43</td>
<td>7.96</td>
<td>16</td>
<td>53.0</td>
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<tr>
<td>SRP0615-6R8K</td>
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<td>31</td>
<td>7.96</td>
<td>14</td>
<td>75.0</td>
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<tr>
<td>SRP0615-100K</td>
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<td>10</td>
<td>42</td>
<td>2.52</td>
<td>11</td>
<td>102.5</td>
</tr>
</tbody>
</table>

### Product Dimensions

![Product Dimensions Diagram]

### Recommended Layout

![Recommended Layout Diagram]

### 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

Packaging: 2000 pcs. per 13-inch reel


### How to Order

<table>
<thead>
<tr>
<th>Model</th>
<th>Value Code (see table)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP0615</td>
<td>4R7K</td>
</tr>
</tbody>
</table>

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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](www.P65Warnings.ca.gov)
**SRP0615 Series - Shielded Power Inductors**

**Soldering Profile**

Peak Temperature: 260 °C max.
Max. Peak Temperature -5 °C: 30 sec. max.
Max. Time Above 217 °C: 60~150 sec. max.

<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>

Forced Cooling Area

Peak Temperature: 260 °C

Temperature (°C)

0 50 100 150 200 250

Time (Seconds)

0 50 100 150 200 250

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SRP0615 Series - Shielded Power Inductors

Packaging Specifications

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REV. 02/20

Dimensions: MM (INCHES)
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