SRP0315 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 Q</th>
<th>Q Test Freq, (MHz)</th>
<th>SRF (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>SRP0315-R47K</td>
<td>0.47</td>
<td>10</td>
<td>10</td>
<td>25.2</td>
<td>85</td>
<td>10.6</td>
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<tr>
<td>SRP0315-R68K</td>
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<td>10</td>
<td>8</td>
<td>25.2</td>
<td>76</td>
<td>14.6</td>
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<td>SRP0315-1R0K</td>
<td>1.00</td>
<td>10</td>
<td>25</td>
<td>7.96</td>
<td>52</td>
<td>24.3</td>
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<td>SRP0315-1R5K</td>
<td>1.50</td>
<td>10</td>
<td>14</td>
<td>7.96</td>
<td>46</td>
<td>40.5</td>
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<td>SRP0315-2R2K</td>
<td>2.20</td>
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<td>16</td>
<td>7.96</td>
<td>41</td>
<td>51.0</td>
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<td>SRP0315-3R3K</td>
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<td>SRP0315-4R7K</td>
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<td>21</td>
<td>7.96</td>
<td>25</td>
<td>130.0</td>
</tr>
</tbody>
</table>

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
Inductance drops 30 % at Isat

Temperature Rise
40 °C at rated Irms1

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: 3000 pcs. per 13-inch reel

How to Order

Model
SRP0315 - 4R7K

Value Code (see table)

WARNING Cancer and Reproductive Harm www.P65Warnings.ca.gov

** 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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SRP0315 Series - Shielded Power Inductors

**L vs. I Charts**

- **SRP0315-R47K**
  - L vs. IDC (A)
  - Temperature Rise (°C)

- **SRP0315-1R0K**
  - L vs. IDC (A)
  - Temperature Rise (°C)

- **SRP0315-2R2K**
  - L vs. IDC (A)
  - Temperature Rise (°C)

- **SRP0315-4R7K**
  - L vs. IDC (A)
  - Temperature Rise (°C)

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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
-4.0 °C/Sec. Max

Preheat Area
150-200 °C / 60-120 Sec.

Reflow Area
+3.0 °C/Sec. Max
-1(0-5) °C/Sec. Max

Forced Cooling Area

Temperature (°C)

Time (Seconds)

Peak Temperature: 260 °C
217 °C
60-150 Sec.
60 Sec. Max.
60-120 Sec.
SRP0315 Series - Shielded Power Inductors

Packaging Specifications

Dimensions:

<table>
<thead>
<tr>
<th>Component</th>
<th>MIN.</th>
<th>MAX.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader No Component</td>
<td>960 (37.795)</td>
<td>960 (37.795)</td>
</tr>
<tr>
<td>Components</td>
<td>390 (15.177)</td>
<td>390 (15.177)</td>
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<tr>
<td>Trailer No Component</td>
<td>960 (37.795)</td>
<td>960 (37.795)</td>
</tr>
</tbody>
</table>

User Direction of Feed

QTY: 3,000 PCS PER REEL

Dimensions: MM (INCHES)

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com
EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com
The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com
www.bourns.com

REV. 04/21
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