Features
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Inductance range 0.15 to 10 µH
- RoHS compliant* and halogen free**

SRP3012C Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 100 kHz / 1 V L (µH)</th>
<th>Q Min. @ 100 kHz</th>
<th>QRF (MHz) Typ.</th>
<th>DCR (mΩ) Typ.</th>
<th>DCR (mΩ) Max.</th>
<th>I rms (A) Typ.</th>
<th>I sat (A) Typ.</th>
<th>Marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP3012C-R15Y</td>
<td>0.15 ± 30 %</td>
<td>10</td>
<td>180</td>
<td>9.6</td>
<td>11</td>
<td>10</td>
<td>14</td>
<td>.15H</td>
</tr>
<tr>
<td>SRP3012C-R22M</td>
<td>0.22 ± 20 %</td>
<td>10</td>
<td>140</td>
<td>14</td>
<td>17</td>
<td>8</td>
<td>12</td>
<td>.22H</td>
</tr>
<tr>
<td>SRP3012C-R33M</td>
<td>0.33 ± 20 %</td>
<td>10</td>
<td>115</td>
<td>16</td>
<td>20</td>
<td>7</td>
<td>9.8</td>
<td>.33H</td>
</tr>
<tr>
<td>SRP3012C-R47M</td>
<td>0.47 ± 20 %</td>
<td>10</td>
<td>98</td>
<td>25</td>
<td>30</td>
<td>5</td>
<td>6.5</td>
<td>.47H</td>
</tr>
<tr>
<td>SRP3012C-R68M</td>
<td>0.68 ± 20 %</td>
<td>10</td>
<td>75</td>
<td>34</td>
<td>40</td>
<td>4.5</td>
<td>5.8</td>
<td>.68H</td>
</tr>
<tr>
<td>SRP3012C-1R0M</td>
<td>1.0 ± 20 %</td>
<td>10</td>
<td>50</td>
<td>50</td>
<td>60</td>
<td>3.3</td>
<td>5.2</td>
<td>1.0H</td>
</tr>
<tr>
<td>SRP3012C-1R5M</td>
<td>1.5 ± 20 %</td>
<td>10</td>
<td>42</td>
<td>71</td>
<td>85</td>
<td>3</td>
<td>4</td>
<td>1.5H</td>
</tr>
<tr>
<td>SRP3012C-2R2M</td>
<td>2.2 ± 20 %</td>
<td>10</td>
<td>38</td>
<td>98</td>
<td>115</td>
<td>2.7</td>
<td>3.2</td>
<td>2.2H</td>
</tr>
<tr>
<td>SRP3012C-3R3M</td>
<td>3.3 ± 20 %</td>
<td>10</td>
<td>34</td>
<td>172</td>
<td>198</td>
<td>2</td>
<td>2.6</td>
<td>3.3H</td>
</tr>
<tr>
<td>SRP3012C-4R7M</td>
<td>4.7 ± 20 %</td>
<td>10</td>
<td>31</td>
<td>245</td>
<td>282</td>
<td>1.6</td>
<td>2.3</td>
<td>4.7H</td>
</tr>
<tr>
<td>SRP3012C-5R6M</td>
<td>5.6 ± 20 %</td>
<td>10</td>
<td>27</td>
<td>310</td>
<td>360</td>
<td>1.5</td>
<td>2</td>
<td>5.6H</td>
</tr>
<tr>
<td>SRP3012C-6R8M</td>
<td>6.8 ± 20 %</td>
<td>10</td>
<td>26</td>
<td>360</td>
<td>400</td>
<td>1.4</td>
<td>1.8</td>
<td>6.8H</td>
</tr>
<tr>
<td>SRP3012C-8R2M</td>
<td>8.2 ± 20 %</td>
<td>10</td>
<td>25</td>
<td>420</td>
<td>463</td>
<td>1.2</td>
<td>1.5</td>
<td>8.2H</td>
</tr>
<tr>
<td>SRP3012C-100M</td>
<td>10 ± 20 %</td>
<td>10</td>
<td>24</td>
<td>450</td>
<td>520</td>
<td>1.1</td>
<td>1.4</td>
<td>10H</td>
</tr>
</tbody>
</table>

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
- MSL: 1
- ESD Classification (HBM): N/A

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

Materials

- Core: Metal alloy powder
- Wire: Enameled copper
- Terminal Finish: Sn
- Packaging: 4000 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>SRP3012C</td>
<td>- 100M</td>
</tr>
</tbody>
</table>

Recommended Layout

Typical Part Marking

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. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

DIMENSIONS: MM
DIMENSIONS: INCHES
**SRP3012C Series - Shielded Power Inductors**

**Soldering Profile**

![Soldering Profile Diagram](image)

**L vs. I Charts**

**SRP3012C-R15Y**

**SRP3012C-R22M**

**SRP3012C-R33M**

**SRP3012C-R47M**

**SRP3012C-R68M**

**SRP3012C-1R0M**

**SRP3012C-1R5M**

**SRP3012C-2R2M**

**SRP3012C-3R3M**

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Packaging Specifications

**DIMENSIONS: MM (INCHES)**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value (MM)</th>
<th>Tolerance (MM)</th>
<th>Value (INCHES)</th>
<th>Tolerance (INCHES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIA.</td>
<td>130 ± 0.5 / -0.2</td>
<td>(.512 ± .020 / -.008)</td>
<td>DIA.</td>
<td>5.12 ± .020 / -.008</td>
</tr>
<tr>
<td>DIA.</td>
<td>12.4 ± 0.2</td>
<td>(.488 ± .008)</td>
<td>DIA.</td>
<td>.488 ± .008</td>
</tr>
<tr>
<td>DIA.</td>
<td>330 (12.992)</td>
<td></td>
<td></td>
<td>12.99</td>
</tr>
<tr>
<td>QTY:</td>
<td>4,000 PCS PER REEL</td>
<td></td>
<td></td>
<td>4,000</td>
</tr>
<tr>
<td>DIA.</td>
<td>3.8 ± 0.1</td>
<td>(.150 ± .004)</td>
<td>DIA.</td>
<td>.150 ± .004</td>
</tr>
<tr>
<td>DIA.</td>
<td>12.0 ± 0.3</td>
<td>(.472 ± .012)</td>
<td>DIA.</td>
<td>.472 ± .012</td>
</tr>
<tr>
<td>DIA.</td>
<td>5.5 ± 0.1</td>
<td>(.217 ± .004)</td>
<td>DIA.</td>
<td>.217 ± .004</td>
</tr>
<tr>
<td>DIA.</td>
<td>8.0 ± 0.1</td>
<td>(.315 ± .004)</td>
<td>DIA.</td>
<td>.315 ± .004</td>
</tr>
<tr>
<td>DIA.</td>
<td>3.5 ± 0.1</td>
<td>(.138 ± .004)</td>
<td>DIA.</td>
<td>.138 ± .004</td>
</tr>
<tr>
<td>DIA.</td>
<td>13 ± 0.5 / -0.2</td>
<td>(.512 ± .020 / -.008)</td>
<td>DIA.</td>
<td>5.12 ± .020 / -.008</td>
</tr>
<tr>
<td>DIA.</td>
<td>100 ± 2</td>
<td>(3.937 ± .079)</td>
<td>DIA.</td>
<td>3.937 ± .079</td>
</tr>
<tr>
<td>DIA.</td>
<td>2.0 ± 0.5</td>
<td>(.079 ± .020)</td>
<td>DIA.</td>
<td>.079 ± .020</td>
</tr>
</tbody>
</table>

**USER DIRECTION OF FEED**

QTY: 4,000 PCS PER REEL

**EMBOSSED CARRIER**

**COVER TAPE**

**EMEA:**
Tel: +36 88 885 877 • Email: eurocus@bourns.com

**The Americas:**
Tel: +1-951 781-5500 • Email: americus@bourns.com

www.bourns.com

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