SRP1265CC Series - Shielded Power Inductors

**Features**
- Shielded construction
- Carbonyl powder core
- High saturation current
- Low radiation
- Low buzz noise
- RoHS compliant* and halogen free**

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### Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shielded construction</td>
<td></td>
</tr>
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<td>Carbonyl powder core</td>
<td></td>
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<tr>
<td>High saturation current</td>
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<tr>
<td>RoHS compliant*</td>
<td></td>
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<tr>
<td>Halogen free**</td>
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</table>

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### Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 100 kHz / 1 V</th>
<th>Q Min.</th>
<th>SRF (MHz) Typ.</th>
<th>DCR (mΩ) Typ.</th>
<th>DCR (mΩ) Max.</th>
<th>Irms (A) Typ.</th>
<th>Isat Typ.</th>
<th>Terminal Type</th>
<th>Non-Lead Frame</th>
<th>Lead Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP1265CC-R22M</td>
<td>0.22</td>
<td>20</td>
<td>10</td>
<td>130</td>
<td>0.47</td>
<td>0.6</td>
<td>55</td>
<td>105</td>
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<td>SRP1265CC-R33M</td>
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<td>10</td>
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<td>0.65</td>
<td>0.8</td>
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<td>70</td>
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<td>10</td>
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<td>15</td>
<td>50</td>
<td>1.25</td>
<td>1.5</td>
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<tr>
<td>SRP1265CC-1RO6M</td>
<td>1.00</td>
<td>20</td>
<td>20</td>
<td>45</td>
<td>1.7</td>
<td>2.3</td>
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<td>20</td>
<td>20</td>
<td>23</td>
<td>4.2</td>
<td>4.8</td>
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<td>20</td>
<td>20</td>
<td>5.7</td>
<td>6.8</td>
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<td>20</td>
<td>17</td>
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<td>9.5</td>
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<tr>
<td>SRP1265CC-8R2M</td>
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<td>20</td>
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<td>15.5</td>
<td>13</td>
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<td>SRP1265CC-330M</td>
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<td>56</td>
<td>8</td>
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</tbody>
</table>

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### Additional Information

Click these links for more information:
- Product Selector
- 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
- **Temperature Rise**: 40 °C at rated Irms
- **Rated Current**: Inductance drops 30% at Isat
- **Moisture Sensitivity Level**: 1
- **ESD Classification (HBM)**: N/A

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**Notes**:

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.

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### Materials

- Core: Carbonyl powder
- Wire: Enameled copper
- Terminal Finish: Sn

### Packing

- Non-Lead Frame: 500 pcs. per 13-inch reel
- Lead Frame: 500 pcs. per 13-inch reel

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### Soldering Profile

**Profile Feature**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preheat</td>
<td></td>
</tr>
<tr>
<td>- Temperature Min. (T Tmin)</td>
<td>150 °C</td>
</tr>
<tr>
<td>- Temperature Max. (T Tmax)</td>
<td>200 °C</td>
</tr>
<tr>
<td>- Time(tL) from T Tmin to T Tmax</td>
<td>60-120 seconds</td>
</tr>
<tr>
<td>Ramp-up Rate (T L to T P)</td>
<td>3 °C/second max.</td>
</tr>
<tr>
<td>Liquidus temperature (T L)</td>
<td>217 °C</td>
</tr>
<tr>
<td>Time (tL) maintained above T L</td>
<td>60-150 seconds</td>
</tr>
<tr>
<td>Peak package body temperature (T P)</td>
<td>245 °C</td>
</tr>
<tr>
<td>Time within 5 °C of Actual Peak Temperature (t P)</td>
<td>&lt;30 seconds</td>
</tr>
<tr>
<td>Ramp-Down Rate (T P to T L)</td>
<td>6 °C/second max.</td>
</tr>
<tr>
<td>Time 25 °C to Peak Temperature</td>
<td>8 minutes max.</td>
</tr>
</tbody>
</table>

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### WARNING Cancer and Reproductive Harm

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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**Product Dimensions**

**Lead Frame Terminal**

- Top View: 13.5 x 0.5 (5.31 ± 0.020)
- Side View: 12.5 ± 0.3 (0.492 ± 0.012)
- Bottom View: 12.5 ± 0.3 (0.492 ± 0.012)

**Non-Lead Frame Terminal**

- Top View: 13.5 x 0.5 (5.31 ± 0.020)
- Side View: 12.5 ± 0.3 (0.492 ± 0.012)
- Bottom View: 12.5 ± 0.3 (0.492 ± 0.012)

**Recommended Layout**

- Dimensions: MM (INCHES)

  - 14.2 (5.59)
  - 8.0 (3.15)

**Electrical Schematic**

**How to Order**

- Model: SRP1265CC - R22M
- Value Code (see table)

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