Features
■ Shielded construction
■ Unit height of 5.6 mm
■ Inductance range: 0.3 to 7.2 μH
■ Current up to 18 A
■ RoHS compliant*

Applications
■ Input/output of DC/DC converters
■ Power supplies for:
  • Portable communications equipment
  • Camcorders
  • LCD TVs

Electrical Specifications

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Initial Inductance L0 (μH)</th>
<th>Inductance at Flat Point L1 (μH)</th>
<th>Flat Point Ref. (A)</th>
<th>SRF typ. (MHz)</th>
<th>Irms (A)</th>
<th>Isat (A)</th>
<th>DCR (mΩ) Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP1205-R30Y</td>
<td>0.54 ±25 %</td>
<td>0.30 ±25 %</td>
<td>5.00</td>
<td>160</td>
<td>18.0</td>
<td>35.0</td>
<td>1.8</td>
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<tr>
<td>SRP1205-R60Y</td>
<td>0.85 ±25 %</td>
<td>0.60 ±25 %</td>
<td>5.00</td>
<td>95</td>
<td>16.0</td>
<td>27.0</td>
<td>2.5</td>
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<tr>
<td>SRP1205-1R0Y</td>
<td>1.25 ±25 %</td>
<td>1.00 ±25 %</td>
<td>5.00</td>
<td>75</td>
<td>14.0</td>
<td>22.0</td>
<td>3.4</td>
</tr>
<tr>
<td>SRP1205-1R8Y</td>
<td>2.00 ±25 %</td>
<td>1.80 ±25 %</td>
<td>2.00</td>
<td>55</td>
<td>13.0</td>
<td>16.0</td>
<td>3.4</td>
</tr>
<tr>
<td>SRP1205-2R6Y</td>
<td>2.70 ±25 %</td>
<td>2.50 ±25 %</td>
<td>2.00</td>
<td>40</td>
<td>11.5</td>
<td>12.0</td>
<td>3.4</td>
</tr>
<tr>
<td>SRP1205-3R3Y</td>
<td>3.50 ±25 %</td>
<td>3.30 ±25 %</td>
<td>2.00</td>
<td>40</td>
<td>11.0</td>
<td>11.8</td>
<td>5.4</td>
</tr>
<tr>
<td>SRP1205-4R0Y</td>
<td>4.20 ±25 %</td>
<td>4.00 ±25 %</td>
<td>3.00</td>
<td>35</td>
<td>10.5</td>
<td>8.3</td>
<td>5.4</td>
</tr>
<tr>
<td>SRP1205-5R6Y</td>
<td>5.80 ±25 %</td>
<td>5.60 ±25 %</td>
<td>2.00</td>
<td>30</td>
<td>8.5</td>
<td>8.0</td>
<td>11.4</td>
</tr>
<tr>
<td>SRP1205-7R2Y</td>
<td>7.40 ±25 %</td>
<td>7.20 ±25 %</td>
<td>2.00</td>
<td>30</td>
<td>8.3</td>
<td>7.5</td>
<td>13.5</td>
</tr>
</tbody>
</table>

L vs I Charts

Electrical Schematic

Recommended Layout

L vs I Charts

Materials
Core........................................Ferrite ER
Wire............................Enameled copper
Terminal ....................................Cu/Ni/Sn
Rated Current.....Ind. drops 20 % at Isat
Temperature Rise ....40 °C at rated Irms
Packaging........600 pcs. per 13-inch reel

General Specifications
Test Voltage.................................1 V
Test Frequency ......................... 100 KHz
Reflow Soldering...290 °C; 50 sec. max.
Operating Temperature ......................+40 °C to +125 °C (Temperature rise included)
Storage Temperature ......................+40 °C to +125 °C
Resistance to Soldering Heat ................260 °C for 10 sec.
Moisture Sensitivity Level .................1 ESD Classification (HBM)..............N/A

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.

Product Dimensions
SRP1205 Series - Shielded Power Inductors

Soldering Profile

Packaging Specifications

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