Features
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Inductance range 0.1 to 10 µH
- RoHS compliant* and halogen free**

SRP5030C Series – Shielded Power Inductors

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 100 kHz / 1 V Q</th>
<th>Q Min. @ 100 kHz</th>
<th>SRF (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>
</tr>
</thead>
<tbody>
<tr>
<td>SRP5030C-R10Y</td>
<td>0.10 ± 30 %</td>
<td>10</td>
<td>177</td>
<td>2.5</td>
<td>3</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>SRP5030C-R12Y</td>
<td>0.12 ± 30 %</td>
<td>10</td>
<td>177</td>
<td>2.5</td>
<td>3</td>
<td>23</td>
<td>31</td>
</tr>
<tr>
<td>SRP5030C-R15Y</td>
<td>0.15 ± 30 %</td>
<td>12</td>
<td>130</td>
<td>2.6</td>
<td>3.2</td>
<td>22</td>
<td>30</td>
</tr>
<tr>
<td>SRP5030C-R33M</td>
<td>0.33 ± 20 %</td>
<td>12</td>
<td>85</td>
<td>4.4</td>
<td>5</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>SRP5030C-R47M</td>
<td>0.47 ± 20 %</td>
<td>20</td>
<td>60</td>
<td>6.4</td>
<td>7.4</td>
<td>16</td>
<td>17</td>
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<tr>
<td>SRP5030C-R68M</td>
<td>0.68 ± 20 %</td>
<td>20</td>
<td>56</td>
<td>8.7</td>
<td>10</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>SRP5030C-1R0M</td>
<td>1.0 ± 20 %</td>
<td>20</td>
<td>43</td>
<td>12</td>
<td>14</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>SRP5030C-1R5M</td>
<td>1.5 ± 20 %</td>
<td>20</td>
<td>35</td>
<td>16</td>
<td>19</td>
<td>8</td>
<td>10.5</td>
</tr>
<tr>
<td>SRP5030C-2R2M</td>
<td>2.2 ± 20 %</td>
<td>20</td>
<td>30</td>
<td>26</td>
<td>32</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>SRP5030C-3R3M</td>
<td>3.3 ± 20 %</td>
<td>20</td>
<td>25</td>
<td>33</td>
<td>38</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>SRP5030C-4R7M</td>
<td>4.7 ± 20 %</td>
<td>20</td>
<td>20</td>
<td>50</td>
<td>53</td>
<td>4</td>
<td>6</td>
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<tr>
<td>SRP5030C-5R6M</td>
<td>5.6 ± 20 %</td>
<td>20</td>
<td>18</td>
<td>55</td>
<td>63</td>
<td>3.6</td>
<td>5</td>
</tr>
<tr>
<td>SRP5030C-6R8M</td>
<td>6.8 ± 20 %</td>
<td>20</td>
<td>16</td>
<td>63</td>
<td>72</td>
<td>3.3</td>
<td>4</td>
</tr>
<tr>
<td>SRP5030C-100M</td>
<td>10 ± 20 %</td>
<td>20</td>
<td>15</td>
<td>102</td>
<td>122</td>
<td>2.8</td>
<td>2.8</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 Irms1
- 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 - 2000 pcs. per 13-inch reel

How to Order
SRP5030C - 100M
Model
Value Code (see table)

Schematic

Recommended Layout

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.
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SRP5030C Series – Shielded Power Inductors

Soldering Profile

PRE-HEATING
SOLDERING
NATURAL COOLING

T_p (260 °C / 10 seconds max.)

Temperature Rise (°C)

Time (Seconds)

REFLOW TIMES: 3 MAX.

L vs. I Charts

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SRP5030C Series – Shielded Power Inductors

Packaging Specifications

DIMENSIONS: MM (INCHES)

12.4 ±0.2
(0.488 ±0.008)

13 ±0.5 / -0.2
(0.512 ±0.008 / -.008)

DIA.

12.0 ± 0.3
(0.472 ± 0.012)

100 ± 2
(3.937 ± 0.079)

USER DIRECTION OF FEED

QTY: 2000 PCS PER REEL

COVER TAPE

EMBOSSED CARRIER

DIMENSIONS: MM (INCHES)

4.0
(0.157)

1.5 ± 0.1
(.059 ± .004)

6.2 ± 0.1
(.244 ± .004)

3.3 ± 0.1
(.130 ± .004)

8.0 ± 0.1
(.315 ± .004)

5.6 ± 0.1
(.220 ± .004)

13.0 ± 0.5
(.512 ± 0.020)

0.35 ± 0.05
(.014 ± .002)

3.3 ± 0.1
(.130 ± .004)

6.2 ± 0.1
(.244 ± .004)

3.3 ± 0.1
(.130 ± .004)

NO COMPONENT

COMPONENTS

NO COMPONENT

330
(12.992)

13 ±0.5 / -0.2
(0.512 ±0.008 / -0.008)

DIA.

13 ±0.5 / -0.2
(0.512 ±0.008 / -0.008)

DIA.

13 ±0.5 / -0.2
(0.512 ±0.008 / -0.008)

DIA.

13 ±0.5 / -0.2
(0.512 ±0.008 / -0.008)

DIA.

13 ±0.5 / -0.2
(0.512 ±0.008 / -0.008)

DIA.
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