Features
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Inductance range: 0.47 to 47 µH
- RoHS compliant* and halogen free**

SRP1770C Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 100 kHz / 1 V</th>
<th>Q (Min.)</th>
<th>SRF (MHz)</th>
<th>DCR (mΩ) Typ.</th>
<th>DCR (mΩ) Max.</th>
<th>Irms (A) Typ.</th>
<th>Isat (A) Typ.</th>
<th>Terminal Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP1770C-R47M</td>
<td>0.47 ± 20</td>
<td>10</td>
<td>28</td>
<td>0.75</td>
<td>0.83</td>
<td>60.0</td>
<td>115</td>
<td>Lead Frame</td>
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<tr>
<td>SRP1770C-1R0M</td>
<td>1.0 ± 20</td>
<td>20</td>
<td>24</td>
<td>1.30</td>
<td>1.50</td>
<td>48.0</td>
<td>68</td>
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<tr>
<td>SRP1770C-1R5M</td>
<td>1.5 ± 20</td>
<td>20</td>
<td>22</td>
<td>1.80</td>
<td>2.10</td>
<td>42.0</td>
<td>55</td>
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<tr>
<td>SRP1770C-2R2M</td>
<td>2.2 ± 20</td>
<td>20</td>
<td>21</td>
<td>2.50</td>
<td>2.80</td>
<td>40.0</td>
<td>45</td>
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<td>SRP1770C-3R3M</td>
<td>3.3 ± 20</td>
<td>20</td>
<td>19</td>
<td>3.50</td>
<td>3.90</td>
<td>28.0</td>
<td>40</td>
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<tr>
<td>SRP1770C-4R7M</td>
<td>4.7 ± 20</td>
<td>20</td>
<td>17</td>
<td>4.80</td>
<td>5.50</td>
<td>26.0</td>
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<tr>
<td>SRP1770C-5R6M</td>
<td>5.6 ± 20</td>
<td>20</td>
<td>15</td>
<td>5.90</td>
<td>6.80</td>
<td>24.0</td>
<td>35</td>
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<tr>
<td>SRP1770C-6R8M</td>
<td>6.8 ± 20</td>
<td>20</td>
<td>14</td>
<td>8.40</td>
<td>9.20</td>
<td>22.0</td>
<td>30</td>
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<tr>
<td>SRP1770C-8R2M</td>
<td>8.2 ± 20</td>
<td>20</td>
<td>13</td>
<td>9.60</td>
<td>10.80</td>
<td>18.0</td>
<td>28</td>
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<tr>
<td>SRP1770C-100M</td>
<td>10.0 ± 20</td>
<td>20</td>
<td>12</td>
<td>11.60</td>
<td>13.00</td>
<td>17.0</td>
<td>25</td>
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<tr>
<td>SRP1770C-150M</td>
<td>15.0 ± 20</td>
<td>20</td>
<td>10</td>
<td>16.50</td>
<td>19.50</td>
<td>14.0</td>
<td>23</td>
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<tr>
<td>SRP1770C-220M</td>
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<td>8</td>
<td>24.00</td>
<td>27.60</td>
<td>12.0</td>
<td>19</td>
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<tr>
<td>SRP1770C-330M</td>
<td>33.0 ± 20</td>
<td>20</td>
<td>6</td>
<td>36.00</td>
<td>42.00</td>
<td>10.7</td>
<td>15</td>
<td></td>
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<td>SRP1770C-470M</td>
<td>47.0 ± 20</td>
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<td>46.00</td>
<td>53.00</td>
<td>8.7</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

Soldering Profile

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

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.

Materials
Core…………………Metal alloy powder Wire …………………Enamelled copper Terminal Finish …………..Sn/Ni Packaging……200 pcs. per 13-inch reel

How to Order
Model: SRP1770C - 220M
Value Code (see table)

Recommended Layout

Schematic

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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.
SRP1770C Series - Shielded Power Inductors

L vs. I Charts

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SRP1770C Series - Shielded Power Inductors

L vs. I Charts (Continued)

Packaging Specifications

Dimensions: MM (INCHES)

200 PIECES PER REEL

USER DIRECTION OF FEED

24.0 ± 0.10
(0.945 ± 0.004)

14.2 ± 0.10
(0.559 ± 0.004)

4.0 ± 0.10
(0.197 ± 0.004)

0.59 ± 0.05
(0.023 ± 0.002)

18.5 ± 0.10
(0.728 ± 0.004)

7.5 ± 0.10
(0.295 ± 0.004)

12.5 ± 0.10
(0.492 ± 0.004)

0.20 ± 0.10
(1.056 ± 0.006)

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