SRP5015TA Series - Shielded Power Inductors

**Features**
- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.15 to 22 µH
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

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**Electrical Specifications @ 25 °C**

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 100 KHz / 1 V (µH)</th>
<th>Q (Min.) @ 100 KHz / 1 V</th>
<th>SRF (MHz)</th>
<th>DCR (mΩ) Typ.</th>
<th>DCR (mΩ) Max.</th>
<th>Irms (A)</th>
<th>Isat (A)</th>
<th>Terminal Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP5015TA-R15Y</td>
<td>0.15 ± 30</td>
<td>5</td>
<td>220</td>
<td>3.6</td>
<td>4.1</td>
<td>16</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>SRP5015TA-R20Y</td>
<td>0.20 ± 30</td>
<td>5</td>
<td>120</td>
<td>8.5</td>
<td>9.8</td>
<td>15</td>
<td>22.5</td>
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</tr>
<tr>
<td>SRP5015TA-R22Y</td>
<td>0.22 ± 30</td>
<td>5</td>
<td>115</td>
<td>6.5</td>
<td>12</td>
<td>20</td>
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<td></td>
</tr>
<tr>
<td>SRP5015TA-R33M</td>
<td>0.33 ± 20</td>
<td>5</td>
<td>110</td>
<td>12</td>
<td>13.8</td>
<td>9</td>
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<td>SRP5015TA-R47M</td>
<td>0.47 ± 20</td>
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<td>85</td>
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<td>16.2</td>
<td>7</td>
<td>13</td>
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<tr>
<td>SRP5015TA-1R0M</td>
<td>1.0 ± 20</td>
<td>10</td>
<td>75</td>
<td>22</td>
<td>25.3</td>
<td>6</td>
<td>9</td>
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<tr>
<td>SRP5015TA-1R5M</td>
<td>1.5 ± 20</td>
<td>10</td>
<td>57</td>
<td>39</td>
<td>45</td>
<td>4.5</td>
<td>7</td>
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<tr>
<td>SRP5015TA-2R2M</td>
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<td>10</td>
<td>48</td>
<td>45</td>
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<td>4</td>
<td>6</td>
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<td>SRP5015TA-3R3M</td>
<td>3.3 ± 20</td>
<td>10</td>
<td>35</td>
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<td>SRP5015TA-4R7M</td>
<td>4.7 ± 20</td>
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<td>29</td>
<td>103</td>
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<td>2.7</td>
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<td>SRP5015TA-5R8M</td>
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<td>10</td>
<td>227</td>
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<td>3.2</td>
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<tr>
<td>SRP5015TA-6R8M</td>
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<td>10</td>
<td>24</td>
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<td>2.3</td>
<td>3</td>
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<tr>
<td>SRP5015TA-8R2M</td>
<td>8.2 ± 20</td>
<td>10</td>
<td>22</td>
<td>175</td>
<td>210</td>
<td>2.1</td>
<td>2.6</td>
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<td>SRP5015TA-100M</td>
<td>10 ± 20</td>
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<td>21</td>
<td>210</td>
<td>235</td>
<td>2</td>
<td>2.3</td>
<td></td>
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<td>SRP5015TA-220M</td>
<td>22 ± 20</td>
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<td>405</td>
<td>466</td>
<td>1.2</td>
<td>1.7</td>
<td></td>
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</tbody>
</table>

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**Soldering Profile**

Preheating Soldering Natural Cooling

Temperature (°C)
- 25
- 60-150 Sec.
- 60-180 Sec.
- 80-180 Sec.
- 150°C
- -200°C
- -217°C
- 240 °C, 20-40 Sec.

Time (Seconds)
- 480 Sec. Max.
- 60-150 Sec.
- 200 °C
- 245 °C
- 217 °C
- 240 °C

Reflow Times: 3 Times Max.

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**How to Order**

SRP5015TA - 100 M

Model
Value Code (see table)
Tolerance Code

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**General Specifications**

**Operating Temperature**
-55 °C to +150 °C (Temperature rise included)

**Storage Temperature**
-55 °C to +150 °C

**Rated Current**
- Inductance drops 20 % at Isat
- Temperature Rise ... 40 °C at rated Irms
- Moisture Sensitivity Level .............. 1

**ESD Classification (HBM) .............. N/A**

**Note 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 ...................... Carbonyl powder
- Wire ...................... Enameled copper
- Terminal Finish .............. Sn
- Packaging ...................... 3500 pcs. per 13-inch reel

**Product Dimensions**

**Lead Frame Terminal**

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**Recommended Layout**

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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.
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L vs. I Charts (Continued)

SRP5015TA-220M

Packaging Specifications

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