Features

- Shielded construction
- Metal alloy powder core
- High saturation current
- Inductance range 0.1 to 10 µH
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP3020TA Series – Shielded Power Inductors

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 100 kHz/1V</th>
<th>Q Min.</th>
<th>SRF (MHz)</th>
<th>DCR (mΩ)</th>
<th>I rms (A)</th>
<th>I sat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP3020TA-R10Y</td>
<td>0.10 ± 30 %</td>
<td>5</td>
<td>340</td>
<td>6.6</td>
<td>9</td>
<td>10.5</td>
</tr>
<tr>
<td>SRP3020TA-R22Y</td>
<td>0.22 ± 30 %</td>
<td>5</td>
<td>185</td>
<td>11</td>
<td>14</td>
<td>9.0</td>
</tr>
<tr>
<td>SRP3020TA-R33M</td>
<td>0.33 ± 20 %</td>
<td>5</td>
<td>160</td>
<td>17</td>
<td>21</td>
<td>8.0</td>
</tr>
<tr>
<td>SRP3020TA-R47M</td>
<td>0.47 ± 20 %</td>
<td>5</td>
<td>105</td>
<td>19.7</td>
<td>23</td>
<td>7.0</td>
</tr>
<tr>
<td>SRP3020TA-R68M</td>
<td>0.68 ± 20 %</td>
<td>5</td>
<td>94</td>
<td>25.5</td>
<td>29</td>
<td>5.5</td>
</tr>
<tr>
<td>SRP3020TA-1R0M</td>
<td>1.0 ± 20 %</td>
<td>10</td>
<td>82</td>
<td>32</td>
<td>38</td>
<td>4.0</td>
</tr>
<tr>
<td>SRP3020TA-1R5M</td>
<td>1.5 ± 20 %</td>
<td>10</td>
<td>54</td>
<td>42</td>
<td>50</td>
<td>3.8</td>
</tr>
<tr>
<td>SRP3020TA-2R2M</td>
<td>2.2 ± 20 %</td>
<td>10</td>
<td>45</td>
<td>65</td>
<td>75</td>
<td>3.5</td>
</tr>
<tr>
<td>SRP3020TA-3R3M</td>
<td>3.3 ± 20 %</td>
<td>10</td>
<td>40</td>
<td>125</td>
<td>145</td>
<td>3.0</td>
</tr>
<tr>
<td>SRP3020TA-4R7M</td>
<td>4.7 ± 20 %</td>
<td>10</td>
<td>34</td>
<td>172</td>
<td>200</td>
<td>2.6</td>
</tr>
<tr>
<td>SRP3020TA-5R6M</td>
<td>5.6 ± 20 %</td>
<td>10</td>
<td>29</td>
<td>205</td>
<td>238</td>
<td>2.2</td>
</tr>
<tr>
<td>SRP3020TA-6R8M</td>
<td>6.8 ± 20 %</td>
<td>10</td>
<td>24</td>
<td>260</td>
<td>300</td>
<td>1.9</td>
</tr>
<tr>
<td>SRP3020TA-8R2M</td>
<td>8.2 ± 20 %</td>
<td>10</td>
<td>22</td>
<td>340</td>
<td>390</td>
<td>1.6</td>
</tr>
<tr>
<td>SRP3020TA-100M</td>
<td>10 ± 20 %</td>
<td>10</td>
<td>20</td>
<td>366</td>
<td>422</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Operating Temperature: -40 °C to +150 °C (Temperature rise included)
Storage Temperature (Component): -40 °C to +150 °C
Rated Current: Inductance drops 30 % at Isat
Temperature Rise: 40 °C at rated Irms
MSL: 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: Metal alloy powder
Wire: Enameled copper
Terminal Finish: Sn/Ni
Packaging: 3000 pcs. per 13-inch reel

Product Dimensions

Recommended Layout

Bourns

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EMEA: Tel: +36 88 520 390 • Email: eurcus@bourns.com
The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com
www.bourns.com

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)

<table>
<thead>
<tr>
<th>Model</th>
<th>Inductance (μH)</th>
<th>DC Current (A)</th>
<th>Temperature Rise (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP3020TA-4R7M</td>
<td>8.0</td>
<td>0.8</td>
<td>90</td>
</tr>
<tr>
<td>SRP3020TA-6R8M</td>
<td>12.0</td>
<td>0.6</td>
<td>80</td>
</tr>
<tr>
<td>SRP3020TA-8R2M</td>
<td>14.0</td>
<td>0.5</td>
<td>70</td>
</tr>
<tr>
<td>SRP3020TA-100M</td>
<td>16.0</td>
<td>0.4</td>
<td>60</td>
</tr>
</tbody>
</table>

**L vs. I Charts**

- **SRP3020TA-4R7M**
- **SRP3020TA-5R6M**
- **SRP3020TA-6R8M**
- **SRP3020TA-8R2M**
- **SRP3020TA-100M**
SRP3020TA Series – Shielded Power Inductors

Packaging Specifications

Dimensions: MM (INCHES)

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