Features
- Shielded construction
- Metal alloy powder core
- High saturation current
- Flat wire
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP4020FA 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) 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>SRP4020FA-R47M</td>
<td>0.47 ± 20 %</td>
<td>30</td>
<td>90</td>
<td>6.0</td>
<td>6.8</td>
<td>9.8</td>
<td>13.2</td>
</tr>
<tr>
<td>SRP4020FA-R68M</td>
<td>0.68 ± 20 %</td>
<td>20</td>
<td>73</td>
<td>7.3</td>
<td>8.2</td>
<td>9.2</td>
<td>12.0</td>
</tr>
<tr>
<td>SRP4020FA-R82M</td>
<td>0.82 ± 20 %</td>
<td>20</td>
<td>62</td>
<td>8.6</td>
<td>9.5</td>
<td>8.5</td>
<td>11.5</td>
</tr>
<tr>
<td>SRP4020FA-1R0M</td>
<td>1.0 ± 20 %</td>
<td>20</td>
<td>56</td>
<td>10.6</td>
<td>11.7</td>
<td>8.0</td>
<td>11.0</td>
</tr>
<tr>
<td>SRP4020FA-1R2M</td>
<td>1.2 ± 20 %</td>
<td>20</td>
<td>53</td>
<td>12.2</td>
<td>13.4</td>
<td>7.2</td>
<td>9.5</td>
</tr>
<tr>
<td>SRP4020FA-1R5M</td>
<td>1.5 ± 20 %</td>
<td>20</td>
<td>45</td>
<td>14.4</td>
<td>15.8</td>
<td>6.7</td>
<td>9.1</td>
</tr>
<tr>
<td>SRP4020FA-2R0M</td>
<td>2.0 ± 20 %</td>
<td>15</td>
<td>40</td>
<td>21.15</td>
<td>23.3</td>
<td>6.2</td>
<td>8.2</td>
</tr>
<tr>
<td>SRP4020FA-2R2M</td>
<td>2.2 ± 20 %</td>
<td>15</td>
<td>38</td>
<td>23.35</td>
<td>25.5</td>
<td>6.0</td>
<td>8.0</td>
</tr>
<tr>
<td>SRP4020FA-3R3M</td>
<td>3.3 ± 20 %</td>
<td>15</td>
<td>26</td>
<td>34.2</td>
<td>38.3</td>
<td>4.4</td>
<td>5.5</td>
</tr>
<tr>
<td>SRP4020FA-4R7M</td>
<td>4.7 ± 20 %</td>
<td>15</td>
<td>25</td>
<td>52.0</td>
<td>57.2</td>
<td>3.8</td>
<td>5.1</td>
</tr>
</tbody>
</table>

### Operating Temperature
- -55 °C to +155 °C (Temperature rise included)

### Storage Temperature (Component)
- -55 °C to +155 °C

### Rated Current
- Inductance drops
  - 10 % L Drop: 20 °C
  - 20 % L Drop: 40 °C

### Temperature Rise
- 20 or 40 °C at rated I rms

### MSL
- 1

### ESD Classification (HBM)
- N/A

### General Specifications
- 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.

### Materials
- Core: Metal alloy powder
- Wire: Enamelled copper
- Terminal Finish: Enameled copper

### Recommended Layout

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Bourns®

WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

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L vs. I Charts

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SRP4020FA Series – Shielded Power Inductors

Soldering Profile

<table>
<thead>
<tr>
<th>Time (Seconds)</th>
<th>Temperature (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20–40</td>
<td>245</td>
</tr>
<tr>
<td>10</td>
<td>260</td>
</tr>
<tr>
<td>60–150</td>
<td>64</td>
</tr>
<tr>
<td>480 max.</td>
<td>0</td>
</tr>
</tbody>
</table>

REFLOW TIMES: 3 MAX.

Packaging Specifications

<table>
<thead>
<tr>
<th>Dimensions (MM)</th>
<th>12.4 ±2/-0 (.488 ±0.079)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter (MM)</td>
<td>330 (12.992)</td>
</tr>
<tr>
<td>Hole Diameter (MM)</td>
<td>13.0 ±0/-0.2 (.512 ±0.008)</td>
</tr>
<tr>
<td>User Direction of Feed</td>
<td>0.05 ±0.1 (.014 ±0.004)</td>
</tr>
<tr>
<td>QTY: 3,000 PCS PER REEL</td>
<td>4.0 ±0.1 (.157)</td>
</tr>
</tbody>
</table>

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