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 L (µH) @ 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>Irms (A)</th>
<th>Isat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20 °C Temp. Rise</td>
<td>40 °C Temp. Rise</td>
</tr>
<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>21.35</td>
<td>23.5</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>

General Specifications

- Operating Temperature: +55 °C to +155 °C (Temperature rise included)
- Storage Temperature (Component): +55 °C to +155 °C
- Rated Current: Inductance drops 10, 20 or 30 % at Isat
- Temperature Rise: 20 or 40 °C at rated Irms
- MSL: 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: Metal alloy powder
- Wire: Enameled copper
- Terminal Finish: Sn
- Packaging: 3000 pcs. per 13-inch reel

Recommended Layout

Product Dimensions

How to Order

**RoHS COMPLIANT,**HALOGEN FREE & AEC-Q200 COMPLIANT

1R01702

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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L vs. I Charts

SRP4020FA-R47M

SRP4020FA-R68Y

SRP4020FA-R82M

SRP4020FA-1R0M

SRP4020FA-1R2M

SRP4020FA-1R5M

SRP4020FA-2R0M

SRP4020FA-2R2M

SRP4020FA-3R3M

SRP4020FA-4R7M
SRP4020FA Series – Shielded Power Inductors

Soldering Profile

Packaging Specifications

REV. 01/19
Specifications are subject to change without notice.
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