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

SRP4030FA Series – Shielded Power Inductors

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 100 kHz / 0.1 V L (μH)</th>
<th>Tol. %</th>
<th>Q (Min.) @ 100 kHz</th>
<th>SRF (MHz)</th>
<th>DCR (mΩ) Typ.</th>
<th>DCR (mΩ) Max.</th>
<th>I rms (A) Typ.</th>
<th>I sat (A) Typ.</th>
<th>20 °C Temp. Rise</th>
<th>40 °C Temp. Rise</th>
<th>10 % L Drop</th>
<th>20 % L Drop</th>
<th>30 % L Drop</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP4030FA-R90M</td>
<td>0.9 ± 20 %</td>
<td>10</td>
<td>60</td>
<td>9.1</td>
<td>10.1</td>
<td>8.2</td>
<td>11.2</td>
<td>5.2</td>
<td>7.0</td>
<td>10.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRP4030FA-1R0M</td>
<td>1.0 ± 20 %</td>
<td>10</td>
<td>58</td>
<td>9.1</td>
<td>10.1</td>
<td>8.0</td>
<td>11.0</td>
<td>5.0</td>
<td>6.8</td>
<td>9.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRP4030FA-3R3M</td>
<td>3.3 ± 20 %</td>
<td>10</td>
<td>28</td>
<td>26.0</td>
<td>28.6</td>
<td>5.0</td>
<td>6.6</td>
<td>3.3</td>
<td>4.8</td>
<td>6.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRP4030FA-4R7M</td>
<td>4.7 ± 20 %</td>
<td>10</td>
<td>27</td>
<td>40.1</td>
<td>44.1</td>
<td>3.9</td>
<td>5.1</td>
<td>2.8</td>
<td>4.2</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRP4030FA-6R8M</td>
<td>6.8 ± 20 %</td>
<td>15</td>
<td>26</td>
<td>67.4</td>
<td>74.1</td>
<td>3.1</td>
<td>4.0</td>
<td>2.3</td>
<td>3.5</td>
<td>4.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product Dimensions

How to Order

SRP4030FA - 1R0M

Model
Value Code (see 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 N/A

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 Enamelled copper
Terminal Finish Sn

Packaging 2000 pcs. per 13-inch reel

Recommended Layout

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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SRP4030FA Series – Shielded Power Inductors

L vs. I Charts

<table>
<thead>
<tr>
<th>Model</th>
<th>DC Current (A)</th>
<th>Temperature Rise (°C)</th>
<th>Inductance (μH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP4030FA-R90M</td>
<td>0, 2.6, 5.2, 7.8, 10.4, 13.0</td>
<td>0, 2.3, 4.4, 6.5, 8.6, 10.7</td>
<td>1.80, 1.44, 1.08, 0.72, 0.36</td>
</tr>
<tr>
<td>SRP4030FA-1R0M</td>
<td>0, 1.5, 3.0, 4.5, 6.0, 7.5</td>
<td>0, 1.1, 2.2, 3.3, 4.4, 5.5</td>
<td>3.3, 2.2, 1.1</td>
</tr>
<tr>
<td>SRP4030FA-4R7M</td>
<td>0, 1.4, 2.8, 4.2, 5.6, 7.0</td>
<td>0, 2.4, 4.8, 7.2, 9.6, 12.0</td>
<td>5.5, 4.4, 3.3, 2.2, 1.1</td>
</tr>
<tr>
<td>SRP4030FA-6R8M</td>
<td>0, 1.2, 2.4, 3.6, 4.8, 6.0</td>
<td>0, 2.4, 4.8, 7.2, 9.6, 12.0</td>
<td>10, 8, 6, 4, 2</td>
</tr>
<tr>
<td>SRP4030FA-1R0M</td>
<td>0, 1.5, 4.5, 3.0, 6.0, 7.5</td>
<td>0, 1.5, 4.5, 3.0, 6.0, 7.5</td>
<td>1.80, 1.44, 1.08, 0.72, 0.36</td>
</tr>
<tr>
<td>SRP4030FA-3R3M</td>
<td>0, 1.2, 3.6, 2.4, 4.8, 6.0</td>
<td>0, 1.2, 3.6, 2.4, 4.8, 6.0</td>
<td>6.4, 4.8, 3.2, 1.6</td>
</tr>
</tbody>
</table>

Soldering Profile

PRE-HEATING

$T_p$ (260 °C / 10 seconds max.)

SOLDERING

60 ~ 180 seconds

NATURAL COOLING

60 ~ 150 seconds

480 seconds max.

Time (Seconds)

REFLOW TIMES: 3 MAX.

NOTE: 0.12 mm thick solder paste recommended.
SRP4030FA Series – Shielded Power Inductors

Packaging Specifications

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DIMENSIONS: MM

THICKNESS 0.10 (.004) MAX

USER DIRECTION OF FEED
QTY: 2,000 PCS PER REEL

06/18
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