Features
- Shielded construction
- Carbonyl powder core
- High saturation current
- Low profile - 1.0 mm
- Inductance range: 0.10 to 10 µH
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

SRP4012TA Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 100 KHz</th>
<th>Q (Min.) @ 100 KHz</th>
<th>SRF (MHz)</th>
<th>DCR (mΩ) Typ.</th>
<th>DCR (mΩ) Max.</th>
<th>Irms (A)</th>
<th>Isat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRP4012TA-R10Y</td>
<td>0.10 ±30</td>
<td>5</td>
<td>400</td>
<td>4.3</td>
<td>5.5</td>
<td>11.5</td>
<td>25</td>
</tr>
<tr>
<td>SRP4012TA-R22M</td>
<td>0.22 ±20</td>
<td>5</td>
<td>200</td>
<td>6.6</td>
<td>8</td>
<td>8.5</td>
<td>20</td>
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<tr>
<td>SRP4012TA-R36M</td>
<td>0.36 ±20</td>
<td>10</td>
<td>143</td>
<td>15.5</td>
<td>18</td>
<td>6.5</td>
<td>8.5</td>
</tr>
<tr>
<td>SRP4012TA-R47M</td>
<td>0.47 ±20</td>
<td>10</td>
<td>120</td>
<td>18</td>
<td>20</td>
<td>6.0</td>
<td>6.5</td>
</tr>
<tr>
<td>SRP4012TA-R60M</td>
<td>0.60 ±20</td>
<td>10</td>
<td>117</td>
<td>22.5</td>
<td>26</td>
<td>5.3</td>
<td>6</td>
</tr>
<tr>
<td>SRP4012TA-1R0M</td>
<td>1.0 ±20</td>
<td>10</td>
<td>80</td>
<td>41</td>
<td>47</td>
<td>4.0</td>
<td>6</td>
</tr>
<tr>
<td>SRP4012TA-1R2M</td>
<td>1.2 ±20</td>
<td>10</td>
<td>70</td>
<td>48</td>
<td>56</td>
<td>3.5</td>
<td>5</td>
</tr>
<tr>
<td>SRP4012TA-1R5M</td>
<td>1.5 ±20</td>
<td>10</td>
<td>62</td>
<td>55</td>
<td>63.3</td>
<td>3.0</td>
<td>4</td>
</tr>
<tr>
<td>SRP4012TA-2R2M</td>
<td>2.2 ±20</td>
<td>10</td>
<td>58</td>
<td>69.2</td>
<td>80</td>
<td>2.8</td>
<td>3.5</td>
</tr>
<tr>
<td>SRP4012TA-3R3M</td>
<td>3.3 ±20</td>
<td>10</td>
<td>41</td>
<td>84</td>
<td>97</td>
<td>2.3</td>
<td>3</td>
</tr>
<tr>
<td>SRP4012TA-4R7M</td>
<td>4.7 ±20</td>
<td>10</td>
<td>35</td>
<td>128</td>
<td>145</td>
<td>2.0</td>
<td>2.5</td>
</tr>
<tr>
<td>SRP4012TA-5R6M</td>
<td>5.6 ±20</td>
<td>10</td>
<td>30</td>
<td>180</td>
<td>208</td>
<td>1.7</td>
<td>2.3</td>
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<tr>
<td>SRP4012TA-6R8M</td>
<td>6.8 ±20</td>
<td>10</td>
<td>28</td>
<td>300</td>
<td>360</td>
<td>1.5</td>
<td>1.7</td>
</tr>
<tr>
<td>SRP4012TA-8R2M</td>
<td>8.2 ±20</td>
<td>10</td>
<td>25</td>
<td>313</td>
<td>376</td>
<td>1.4</td>
<td>1.6</td>
</tr>
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<td>SRP4012TA-100M</td>
<td>10.0 ±20</td>
<td>10</td>
<td>23</td>
<td>410</td>
<td>463</td>
<td>1.3</td>
<td>1.4</td>
</tr>
</tbody>
</table>

General Specifications
- Test Voltage: 1.0 V
- Test Frequency: 100 KHz
- Operating Temperature: -40 °C to +150 °C (Temperature rise included)
- Storage Temperature: -40 °C to +125 °C
- Rated Current: Inductance drops 20 % at Isat
- Temperature Rise: 40 °C at rated Irms
- Moisture Sensitivity Level: 1
- ESD Classification (HBM): N/A

Materials
- Core: Carbonyl powder
- Wire: Enamelled copper
- Terminal Finish: Sn
- Packaging: 4000 pcs. per 13-inch reel

How to Order
Model
SRP4012TA - 100M
Value Code (see table)

Recommended Layout

How to Order
SRP4012TA - 100M

Electrical Schematic

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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SRP4012TA Series - Shielded Power Inductors

L vs. I Charts

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## Soldering Profile

![Soldering Profile Diagram]

REFLOW TIMES: 3 MAX.

## Packaging Specifications

![Packaging Specifications Diagram]

**Dimensions (mm)**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>330 (12.99) DIA</td>
<td>2.0 ± 0.5 (0.079 ± 0.020)</td>
</tr>
<tr>
<td>13.5 ± 0.5 (0.531 ± 0.020) DIA</td>
<td>10.0 ± 2.0 (0.394 ± 0.079)</td>
</tr>
<tr>
<td>12.9 ± 0.5 (0.472 ± 0.020)</td>
<td></td>
</tr>
<tr>
<td>1.75 (0.069)</td>
<td></td>
</tr>
<tr>
<td>4.0 (0.157)</td>
<td></td>
</tr>
<tr>
<td>2.0 (0.079)</td>
<td></td>
</tr>
<tr>
<td>1.5 (0.059) DIA</td>
<td></td>
</tr>
<tr>
<td>0.35 ± 0.05 (0.014 ± 0.002)</td>
<td></td>
</tr>
<tr>
<td>5.0 ± 0.1 (0.197 ± 0.004)</td>
<td></td>
</tr>
</tbody>
</table>

**QTY:** 4000 PCS. PER REEL

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**REV. 12/18**

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Users should verify actual device performance in their specific applications.

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