**Features**
- Semi-shielded construction
- Inductance range: 0.47 to 22 µH
- Rated current up to 3.2 A
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

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**SRN4012TA Series - Semi-shielded Power Inductors**

**Electrical Specifications @ 25 °C**

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 100 kHz / 1 V L (µH)</th>
<th>Q @ 100 kHz (Min.)</th>
<th>SRF (MHz) Typ.</th>
<th>DCR (Ω) ±20 %</th>
<th>Irms (A)</th>
<th>Isat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRN4012TA-R47M</td>
<td>0.47 ±20</td>
<td>6</td>
<td>140</td>
<td>0.025</td>
<td>3.2</td>
<td>4</td>
</tr>
<tr>
<td>SRN4012TA-1R0M</td>
<td>1.0 ±20</td>
<td>6</td>
<td>100</td>
<td>0.042</td>
<td>2.2</td>
<td>2.8</td>
</tr>
<tr>
<td>SRN4012TA-1R5M</td>
<td>1.5 ±20</td>
<td>6</td>
<td>90</td>
<td>0.05</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>SRN4012TA-2R2M</td>
<td>2.2 ±20</td>
<td>6</td>
<td>70</td>
<td>0.06</td>
<td>1.9</td>
<td>1.65</td>
</tr>
<tr>
<td>SRN4012TA-3R3M</td>
<td>3.3 ±20</td>
<td>6</td>
<td>60</td>
<td>0.07</td>
<td>1.7</td>
<td>1.4</td>
</tr>
<tr>
<td>SRN4012TA-4R7M</td>
<td>4.7 ±20</td>
<td>6</td>
<td>45</td>
<td>0.095</td>
<td>1.5</td>
<td>1.2</td>
</tr>
<tr>
<td>SRN4012TA-5R6M</td>
<td>5.6 ±20</td>
<td>6</td>
<td>40</td>
<td>0.12</td>
<td>1.4</td>
<td>1.1</td>
</tr>
<tr>
<td>SRN4012TA-6R8M</td>
<td>6.8 ±20</td>
<td>6</td>
<td>35</td>
<td>0.125</td>
<td>1.3</td>
<td>0.9</td>
</tr>
<tr>
<td>SRN4012TA-100M</td>
<td>10 ±20</td>
<td>10</td>
<td>30</td>
<td>0.18</td>
<td>1.1</td>
<td>0.8</td>
</tr>
<tr>
<td>SRN4012TA-150M</td>
<td>15 ±20</td>
<td>10</td>
<td>24</td>
<td>0.26</td>
<td>0.75</td>
<td>0.65</td>
</tr>
<tr>
<td>SRN4012TA-220M</td>
<td>22 ±20</td>
<td>10</td>
<td>18</td>
<td>0.4</td>
<td>0.62</td>
<td>0.5</td>
</tr>
</tbody>
</table>

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**General Specifications**

- **Operating Temperature**: -40 °C to +125 °C (Temperature rise included)
- **Storage Temperature**: -40 °C to +125 °C
- **Temperature Rise**: 40 °C at rated Irms
- **Rated Current**: Inductance drops 30 % at Isat
- **Mean Time Between Failures (MTBF)**: 40.4 x 10⁶ hours

**Materials**

- Core: Ferrite
- Wire: Enameled copper
- Terminal Finish: Sn
- Coating: Magnetic epoxy resin
- Packaging: 4500 pcs. per 13-inch reel

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**Product Dimensions**

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**Soldering Profile**

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**Warning**

Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://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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Inductance vs. Current

SRN4012TA Series - Semi-shielded Power Inductors

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SRP4012TA Series - Shielded Power Inductors

L vs. I Charts

![Graphs showing L vs. I for SRP4012TA-6R8M, SRP4012TA-8R2M, and SRP4012TA-100M inductors.]

Electrical Schematic

![Electrical schematic diagram of the SRP4012TA series inductors.]

Packaging Specifications

![Packaging specifications diagram with dimensions and tolerances.]

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