Features
- Semi-shielded construction
- Inductance range: 1 to 22 µH
- Rated current up to 2 A
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRN3012TA Series - Semi-shielded Power Inductors

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 1 MHz / 0.1 V (L (µH) Tol. %) @ 1 MHz</th>
<th>Q (Min.) Typ.</th>
<th>SRF (MHz)</th>
<th>DCR (Ω) ±20 %</th>
<th>Irms (A)</th>
<th>Isat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRN3012TA-1R0Y</td>
<td>1.0 ±30</td>
<td>10</td>
<td>150</td>
<td>0.042</td>
<td>2.00</td>
<td>2.15</td>
</tr>
<tr>
<td>SRN3012TA-1R5Y</td>
<td>1.5 ±30</td>
<td>15</td>
<td>130</td>
<td>0.056</td>
<td>1.85</td>
<td>1.7</td>
</tr>
<tr>
<td>SRN3012TA-2R2M</td>
<td>2.2 ±20</td>
<td>15</td>
<td>90</td>
<td>0.08</td>
<td>1.7</td>
<td>1.5</td>
</tr>
<tr>
<td>SRN3012TA-3R3M</td>
<td>3.3 ±20</td>
<td>15</td>
<td>70</td>
<td>0.1</td>
<td>1.55</td>
<td>1.2</td>
</tr>
<tr>
<td>SRN3012TA-4R7M</td>
<td>4.7 ±20</td>
<td>18</td>
<td>55</td>
<td>0.13</td>
<td>1.3</td>
<td>1.05</td>
</tr>
<tr>
<td>SRN3012TA-6R8M</td>
<td>6.8 ±20</td>
<td>20</td>
<td>45</td>
<td>0.18</td>
<td>1.05</td>
<td>0.9</td>
</tr>
<tr>
<td>SRN3012TA-100M</td>
<td>10 ±20</td>
<td>20</td>
<td>40</td>
<td>0.245</td>
<td>0.89</td>
<td>0.76</td>
</tr>
<tr>
<td>SRN3012TA-150M</td>
<td>15 ±20</td>
<td>20</td>
<td>35</td>
<td>0.386</td>
<td>0.74</td>
<td>0.62</td>
</tr>
<tr>
<td>SRN3012TA-220M</td>
<td>22 ±20</td>
<td>22</td>
<td>25</td>
<td>0.58</td>
<td>0.61</td>
<td>0.49</td>
</tr>
</tbody>
</table>

General Specifications
- Operating Temperature: -55 °C to +125 °C (Temperature rise included)
- Storage Temperature: -55 °C to +125 °C
- Temperature Rise: 40 °C at rated Irms
- Rated Current: Inductance drops 30 % at Isat
- Failure In Time (FIT): 24.7 x 10^8 hours
- Mean Time Between Failures (MTBF): 40.4 x 10^6 hours

Materials
- Core: Ferrite
- Wire: Enameled copper
- Terminal Finish: Sn
- Coating: Magnetic epoxy resin
- Packaging: 2000 pcs. per 7-inch reel

Soldering Profile

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>Preheating</th>
<th>Soldering</th>
<th>Natural Cooling</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 °C</td>
<td>60-180 Sec.</td>
<td>60-150 Sec.</td>
<td>480 Sec. Max.</td>
</tr>
<tr>
<td>-217 °C</td>
<td>60-180 Sec.</td>
<td>60-150 Sec.</td>
<td>480 Sec. Max.</td>
</tr>
<tr>
<td>-150 °C</td>
<td>60-180 Sec.</td>
<td>60-150 Sec.</td>
<td>480 Sec. Max.</td>
</tr>
<tr>
<td>217 °C</td>
<td></td>
<td>60-150 Sec.</td>
<td>480 Sec. Max.</td>
</tr>
<tr>
<td>220 °C</td>
<td></td>
<td>60-150 Sec.</td>
<td>480 Sec. Max.</td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Electrical Schematic

How to Order
- Model: SRN3012TA
- Value Code (see table)

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. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.
SRN3012TA Series - Semi-shielded Power Inductors

Inductance vs. Current

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Packaging Specifications

DIMENSIONS: MM

<table>
<thead>
<tr>
<th>USER DIRECTION OF FEED</th>
<th>QTY: 2000 PCS. PER REEL</th>
</tr>
</thead>
</table>

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Users should verify actual device performance in their specific applications.

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