Features

- Semi-shielded construction
- Inductance range: 1 to 22 μH
- Rated current up to 2.1 A
- AEC-Q200 qualified
- Low profile: 1.0 mm max.
- RoHS compliant* and halogen free**

Applications

- Automotive systems:
  - Driver assistant
  - Infotainment
  - Lighting
- DC/DC converters
- Power supplies
- Wearable devices
- HDD, SSDs
- Smartphones
- LCD displays

SRN3010TA 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)</th>
<th>Tol. %</th>
<th>Q @ 1 MHz Min.</th>
<th>SRF (MHz) Typ.</th>
<th>DCR (Ω) ±20 %</th>
<th>Irms (A) Typ.</th>
<th>Isat (A) Typ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRN3010TA-1R0Y</td>
<td>1.0 ±30</td>
<td></td>
<td>10</td>
<td>170</td>
<td>0.055</td>
<td>2.1</td>
<td>1.8</td>
</tr>
<tr>
<td>SRN3010TA-1R5Y</td>
<td>1.5 ±30</td>
<td></td>
<td>12</td>
<td>150</td>
<td>0.07</td>
<td>1.9</td>
<td>1.5</td>
</tr>
<tr>
<td>SRN3010TA-2R2M</td>
<td>2.2 ±20</td>
<td></td>
<td>15</td>
<td>100</td>
<td>0.09</td>
<td>1.7</td>
<td>1.3</td>
</tr>
<tr>
<td>SRN3010TA-3R3M</td>
<td>3.3 ±20</td>
<td></td>
<td>18</td>
<td>85</td>
<td>0.13</td>
<td>1.5</td>
<td>1.1</td>
</tr>
<tr>
<td>SRN3010TA-4R7M</td>
<td>4.7 ±20</td>
<td></td>
<td>20</td>
<td>80</td>
<td>0.17</td>
<td>1.3</td>
<td>0.9</td>
</tr>
<tr>
<td>SRN3010TA-6R8M</td>
<td>6.8 ±20</td>
<td></td>
<td>20</td>
<td>55</td>
<td>0.26</td>
<td>1</td>
<td>0.77</td>
</tr>
<tr>
<td>SRN3010TA-100M</td>
<td>10 ±20</td>
<td></td>
<td>22</td>
<td>40</td>
<td>0.35</td>
<td>0.8</td>
<td>0.63</td>
</tr>
<tr>
<td>SRN3010TA-150M</td>
<td>15 ±20</td>
<td></td>
<td>22</td>
<td>35</td>
<td>0.51</td>
<td>0.7</td>
<td>0.54</td>
</tr>
<tr>
<td>SRN3010TA-220M</td>
<td>22 ±20</td>
<td></td>
<td>22</td>
<td>30</td>
<td>0.75</td>
<td>0.6</td>
<td>0.43</td>
</tr>
</tbody>
</table>

General Specifications

- Operating Temperature: -40 °C to +125 °C (Temperature rise included)
- Storage Temperature (Component): -40 °C to +125 °C
- Temperature Rise: 40 °C at rated Irms
- Rated Current: Inductance drops 30 % at Isat
- Moisture Sensitivity Level: 1
- ESD Classification (HBM): N/A

Materials

- Core: Ferrite
- Wire: Enameled copper
- Terminal Finish: Magnetic epoxy resin
- Coating: Sn

Product Dimensions

How to Order

Model: SRN3010TA - 2R2M
Value Code (see table)

Recommended Layout

Applications

- Automotive systems: Driver assistant, Infotainment, Lighting
- DC/DC converters
- Power supplies
- Wearable devices
- HDD, SSDs
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**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.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.
Inductance vs. Current

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The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.
Soldering Profile

Packaging Specifications

**SRN3010TA Series - Semi-shielded Power Inductors**

**Soldering Profile**

- **Preheating**
  - $t_p$ (260 °C, 10 Sec. Max.)
  - $t_p$ (245 °C, 20–40 Sec.)

- **Soldering**
  - 150°C
  - 60–150 Sec.

- **Natural Cooling**
  - 480 Sec. Max.

**Packaging Specifications**

- **Dimensions:**
  - 8.4 ± 1.0 (331 ± .04)
  - 13.0 ± 0.8 (512 ± .03)
  - 2.0 ± 0.05 (0.79 ± .002)
  - 0.23 ± 0.05 (0.09 ± .002)
  - 8.0 ± 0.1 (3.15 ± .004)
  - 3.2 ± 0.05 (1.26 ± .002)

- **User Direction of Feed**
  - QTY: 2000 PCS. PER REEL

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