**Features**
- Semi-shielded construction
- Inductance range: 0.6 to 100 µH
- Rated current up to 8 A
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

**Applications**
- DC/DC converters
- Power supplies

### SRN5040TA Series - Semi-shielded Power Inductors

**Specifications**

**Electrical Specifications @ 25 °C**

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 100 kHz / 1 V L (µH)</th>
<th>@ 100 kHz Min. Q (MHz) Typ.</th>
<th>SRF (MHz)</th>
<th>DCR (Ω) ±20 %</th>
<th>Irms (A) Typ.</th>
<th>Isat (A) Typ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRN5040TA-R60M</td>
<td>0.60 ±20</td>
<td>15</td>
<td>250</td>
<td>0.008</td>
<td>8.00</td>
<td>11.00</td>
</tr>
<tr>
<td>SRN5040TA-1R0M</td>
<td>1.0 ±20</td>
<td>15</td>
<td>140</td>
<td>0.012</td>
<td>5.00</td>
<td>7.50</td>
</tr>
<tr>
<td>SRN5040TA-1R5M</td>
<td>1.5 ±20</td>
<td>15</td>
<td>112</td>
<td>0.015</td>
<td>4.50</td>
<td>6.50</td>
</tr>
<tr>
<td>SRN5040TA-2R2M</td>
<td>2.2 ±20</td>
<td>15</td>
<td>62</td>
<td>0.021</td>
<td>3.80</td>
<td>5.70</td>
</tr>
<tr>
<td>SRN5040TA-3R3M</td>
<td>3.3 ±20</td>
<td>15</td>
<td>48</td>
<td>0.024</td>
<td>3.50</td>
<td>4.40</td>
</tr>
<tr>
<td>SRN5040TA-4R7M</td>
<td>4.7 ±20</td>
<td>15</td>
<td>36</td>
<td>0.032</td>
<td>3.20</td>
<td>3.90</td>
</tr>
<tr>
<td>SRN5040TA-6R8M</td>
<td>6.8 ±20</td>
<td>15</td>
<td>32</td>
<td>0.043</td>
<td>2.50</td>
<td>3.30</td>
</tr>
<tr>
<td>SRN5040TA-100M</td>
<td>10 ±20</td>
<td>15</td>
<td>26</td>
<td>0.056</td>
<td>2.20</td>
<td>2.52</td>
</tr>
<tr>
<td>SRN5040TA-150M</td>
<td>15 ±20</td>
<td>15</td>
<td>22</td>
<td>0.08</td>
<td>1.80</td>
<td>2.00</td>
</tr>
<tr>
<td>SRN5040TA-220M</td>
<td>22 ±20</td>
<td>15</td>
<td>16</td>
<td>0.123</td>
<td>1.50</td>
<td>1.62</td>
</tr>
<tr>
<td>SRN5040TA-330M</td>
<td>33 ±20</td>
<td>15</td>
<td>13</td>
<td>0.18</td>
<td>1.20</td>
<td>1.30</td>
</tr>
<tr>
<td>SRN5040TA-470K</td>
<td>47 ±10</td>
<td>15</td>
<td>11</td>
<td>0.27</td>
<td>1.00</td>
<td>1.10</td>
</tr>
<tr>
<td>SRN5040TA-680K</td>
<td>68 ±10</td>
<td>15</td>
<td>10</td>
<td>0.4</td>
<td>0.80</td>
<td>0.90</td>
</tr>
<tr>
<td>SRN5040TA-101K</td>
<td>100 ±10</td>
<td>15</td>
<td>7</td>
<td>0.56</td>
<td>0.72</td>
<td>0.75</td>
</tr>
</tbody>
</table>

**General Specifications**

- Operating Temperature: -55 °C to +125 °C (Temperature rise included)
- Storage Temperature (Component): -55 °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: Enamelled copper
- Terminal Finish: Sn
- Magnetic epoxy resin

**Product Dimensions**

**Recommended Layout**

**How to Order**

**SRN5040TA - 2R2M**

**Applications**

- DC/DC converters
- Power supplies

**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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Inductance vs. Current (Continued)

Soldering Profile

Preheating Soldering Natural Cooling

Temperature Rise (°C)

Time (Seconds)

Reflow 3 times max.

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SRN5040TA Series - Semi-shielded Power Inductors

Packaging Specifications

**DIMENSIONS:**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Inch</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.4 ±0.1</td>
<td>(.488 ±.004)</td>
</tr>
<tr>
<td>13.0 ±0.5 ±0.2</td>
<td>(.512 ±.020/-.008)</td>
</tr>
<tr>
<td>3.0 ±0.2</td>
<td>(.118 ±.008)</td>
</tr>
<tr>
<td>3.00 ±0.3</td>
<td>(1.18 ±.125)</td>
</tr>
<tr>
<td>7.5 ±0.1</td>
<td>(.295 ±.004)</td>
</tr>
<tr>
<td>8.0 ±0.1</td>
<td>(.315 ±.004)</td>
</tr>
<tr>
<td>2.0 ±0.1</td>
<td>(.079 ±.004)</td>
</tr>
<tr>
<td>5.4 ±0.1</td>
<td>(.213 ±.004)</td>
</tr>
<tr>
<td>4.3 ±0.1</td>
<td>(.169 ±.004)</td>
</tr>
</tbody>
</table>

**USER DIRECTION OF FEED**

**QTY:** 1,500 PCS PER REEL

**ELECTRODES**

(BOTTOM VIEW)

**EMBOSSED CARRIER**

**EMBOSSED CAVITY**

**THICKNESS**

0.10

(.004)

MAX

0.4 ±0.05

(.016 ±.002)

0.4 ±0.1

(.169 ±.004)

0.54 ±0.1

(.213 ±.004)

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