## Features
- Semi-shielded construction
- Inductance range: 0.5 to 330 µH
- Rated current up to 12 A
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

### SRN8040TA Series - Semi-shielded Power Inductors

**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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### Operating Temp. ..........-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) ........24.7/109 hours
### Mean Time Between Failures (MTBF) ..................................40.4 x 106 hours
### Moisture Sensitivity Level .....................1
### ESD Classification (HBM) ................. N/A

### General Specifications
- Core: Ferrite
- Wire: Enameled copper
- Terminal Finish: Sn Coating
- Magnetic epoxy resin
- Packaging: 1000 pcs. per 13-inch reel

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

### Product Dimensions

#### Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 1 MHz / 1 V</th>
<th>Q (Min.) @ 1 MHz</th>
<th>SRF (MHz) Typ.</th>
<th>DCR (mΩ) ±20 %</th>
<th>Irms (A) Typ.</th>
<th>Isat (A) Typ.</th>
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<tbody>
<tr>
<td>SRN8040TA-R50Y</td>
<td>0.5 ± 30</td>
<td>20</td>
<td>165</td>
<td>5.5</td>
<td>12.0</td>
<td>17.0</td>
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<tr>
<td>SRN8040TA-1R0Y</td>
<td>1.0 ± 30</td>
<td>15</td>
<td>85</td>
<td>8.2</td>
<td>8.50</td>
<td>13.80</td>
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<tr>
<td>SRN8040TA-1R4Y</td>
<td>1.4 ± 30</td>
<td>15</td>
<td>78</td>
<td>10</td>
<td>8.20</td>
<td>11.80</td>
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<tr>
<td>SRN8040TA-1R5Y</td>
<td>1.5 ± 30</td>
<td>15</td>
<td>66</td>
<td>10</td>
<td>8.00</td>
<td>11.50</td>
</tr>
<tr>
<td>SRN8040TA-2R0Y</td>
<td>2.0 ± 30</td>
<td>15</td>
<td>61</td>
<td>11</td>
<td>7.50</td>
<td>10.20</td>
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<tr>
<td>SRN8040TA-2R2Y</td>
<td>2.2 ± 30</td>
<td>15</td>
<td>57</td>
<td>11.5</td>
<td>7.40</td>
<td>9.80</td>
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<tr>
<td>SRN8040TA-3R3Y</td>
<td>3.3 ± 30</td>
<td>15</td>
<td>48</td>
<td>15</td>
<td>6.60</td>
<td>8.00</td>
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<tr>
<td>SRN8040TA-4R7M</td>
<td>4.7 ± 20</td>
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<td>38</td>
<td>19.5</td>
<td>5.80</td>
<td>6.70</td>
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<tr>
<td>SRN8040TA-5R6M</td>
<td>5.6 ± 20</td>
<td>15</td>
<td>32</td>
<td>22</td>
<td>5.40</td>
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<tr>
<td>SRN8040TA-6R8M</td>
<td>6.8 ± 20</td>
<td>15</td>
<td>29</td>
<td>25</td>
<td>5.10</td>
<td>5.60</td>
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<tr>
<td>SRN8040TA-100M</td>
<td>10 ± 20</td>
<td>15</td>
<td>25</td>
<td>33</td>
<td>4.60</td>
<td>5.00</td>
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<tr>
<td>SRN8040TA-150M</td>
<td>15 ± 20</td>
<td>12</td>
<td>20</td>
<td>50</td>
<td>3.60</td>
<td>4.00</td>
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<tr>
<td>SRN8040TA-220M</td>
<td>22 ± 20</td>
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<td>18</td>
<td>73</td>
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<td>3.10</td>
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<td>SRN8040TA-330M</td>
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<td>15</td>
<td>100</td>
<td>2.30</td>
<td>2.60</td>
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<td>SRN8040TA-470M</td>
<td>47 ± 20</td>
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<td>12</td>
<td>135</td>
<td>2.00</td>
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<td>SRN8040TA-560M</td>
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<td>1.75</td>
<td>1.90</td>
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<td>SRN8040TA-680M</td>
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<td>205</td>
<td>1.65</td>
<td>1.75</td>
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<td>230</td>
<td>1.40</td>
<td>1.60</td>
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<td>SRN8040TA-101M</td>
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<td>10</td>
<td>8</td>
<td>300</td>
<td>1.20</td>
<td>1.45</td>
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<td>SRN8040TA-121M</td>
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<td>7.5</td>
<td>350</td>
<td>1.10</td>
<td>1.30</td>
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<td>SRN8040TA-151M</td>
<td>150 ± 20</td>
<td>10</td>
<td>7</td>
<td>410</td>
<td>0.98</td>
<td>1.20</td>
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<tr>
<td>SRN8040TA-181M</td>
<td>180 ± 20</td>
<td>10</td>
<td>6.5</td>
<td>490</td>
<td>0.91</td>
<td>1.04</td>
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<tr>
<td>SRN8040TA-221M</td>
<td>220 ± 20</td>
<td>10</td>
<td>5.5</td>
<td>610</td>
<td>0.85</td>
<td>0.99</td>
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<td>SRN8040TA-331M</td>
<td>330 ± 20</td>
<td>10</td>
<td>5</td>
<td>850</td>
<td>0.70</td>
<td>0.75</td>
</tr>
</tbody>
</table>

### General Specifications
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- Storage Temperature ..-55 °C to +125 °C
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### Materials
- Core: Ferrite
- Wire: Enameled copper
- Terminal Finish: Sn Coating
- Magnetic epoxy resin

### Product Dimensions

#### DIMENSIONS: MM (INCHES)

| 8.0 ± 0.3 (315 ± 0.012) |
| 8.8 ± 0.3 (345 ± 0.012) |
| 5.5 ± 0.3 (217 ± 0.012) |
| 2.4 ± 0.3 (094 ± 0.012) |

### WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

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SRN8040TA Series - Semi-shielded Power Inductors

Temperature Rise vs. Current

Inductance vs. Current

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Soldering Profile

Preheating  Soldering  Natural Cooling

Temperature (°C)

Time (Seconds)

Packaging Specifications

DIMENSIONS:  MM  (INCHES)

QTY: 1000 PCS. PER REEL

REV. 06/19

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