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

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 1 MHz / 1 V (Min.) L (µH) @ 1 MHz</th>
<th>O (Min.) @ 1 MHz</th>
<th>SRF (MHz) Typ.</th>
<th>DCR (mΩ) ±20%</th>
<th>Irms (A) Typ.</th>
<th>Isat (A) Typ.</th>
</tr>
</thead>
<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>8.5</td>
<td>13.8</td>
</tr>
<tr>
<td>SRN8040TA-1R4Y</td>
<td>1.4 ± 30</td>
<td>15</td>
<td>78</td>
<td>10</td>
<td>8.2</td>
<td>11.8</td>
</tr>
<tr>
<td>SRN8040TA-1R5Y</td>
<td>1.5 ± 30</td>
<td>15</td>
<td>66</td>
<td>10</td>
<td>8.0</td>
<td>11.5</td>
</tr>
<tr>
<td>SRN8040TA-2R0Y</td>
<td>2.0 ± 30</td>
<td>15</td>
<td>61</td>
<td>11</td>
<td>7.5</td>
<td>10.2</td>
</tr>
<tr>
<td>SRN8040TA-2R2Y</td>
<td>2.2 ± 30</td>
<td>15</td>
<td>57</td>
<td>11.5</td>
<td>7.4</td>
<td>9.8</td>
</tr>
<tr>
<td>SRN8040TA-3R3Y</td>
<td>3.3 ± 30</td>
<td>15</td>
<td>48</td>
<td>15</td>
<td>6.6</td>
<td>8.0</td>
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<tr>
<td>SRN8040TA-4R7M</td>
<td>4.7 ± 20</td>
<td>15</td>
<td>38</td>
<td>19.5</td>
<td>5.8</td>
<td>6.7</td>
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<tr>
<td>SRN8040TA-5R6M</td>
<td>5.6 ± 20</td>
<td>15</td>
<td>33</td>
<td>22</td>
<td>5.4</td>
<td>6.2</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>5.1</td>
<td>5.6</td>
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<tr>
<td>SRN8040TA-100M</td>
<td>10 ± 20</td>
<td>15</td>
<td>25</td>
<td>33</td>
<td>4.6</td>
<td>5.0</td>
</tr>
<tr>
<td>SRN8040TA-150M</td>
<td>15 ± 20</td>
<td>12</td>
<td>20</td>
<td>50</td>
<td>3.6</td>
<td>4.0</td>
</tr>
<tr>
<td>SRN8040TA-220M</td>
<td>22 ± 20</td>
<td>12</td>
<td>18</td>
<td>73</td>
<td>2.9</td>
<td>3.1</td>
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<tr>
<td>SRN8040TA-330M</td>
<td>33 ± 20</td>
<td>12</td>
<td>15</td>
<td>100</td>
<td>2.3</td>
<td>2.6</td>
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<td>SRN8040TA-470M</td>
<td>47 ± 20</td>
<td>12</td>
<td>12</td>
<td>135</td>
<td>2.0</td>
<td>2.2</td>
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<tr>
<td>SRN8040TA-560M</td>
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<td>12</td>
<td>10.5</td>
<td>160</td>
<td>1.7</td>
<td>1.9</td>
</tr>
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<td>SRN8040TA-680M</td>
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<td>12</td>
<td>9.5</td>
<td>205</td>
<td>1.65</td>
<td>1.75</td>
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<td>SRN8040TA-820M</td>
<td>82 ± 20</td>
<td>12</td>
<td>8.5</td>
<td>230</td>
<td>1.4</td>
<td>1.6</td>
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<tr>
<td>SRN8040TA-101M</td>
<td>100 ± 20</td>
<td>10</td>
<td>8</td>
<td>300</td>
<td>1.2</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>1.1</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>
</tr>
<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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<tr>
<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>
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</tbody>
</table>

General Specifications
- 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) ....... 24,710⁶ hours
- Mean Time Between Failures (MTBF) ......................... 40.4 x 10⁶ hours
- Moisture Sensitivity Level .......................... 1

Materials
- Core .............................................. Ferrite
- Wire ............................................. Enamelled copper
- Terminal Finish .................................. Sn
- Coating .......................................... Magnetic epoxy resin
- Packaging ................................. 1000 pcs. per 13-inch reel

Product Dimensions

How to Order
- SRN8040TA - 100M

Model
Value Code (see table)

BOURNS
Asia-Pacific: Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116
EMEA: Tel: +36 88 520 390 • Fax: +36 88 520 211
The Americas: Tel: +1-951 781-5500 • Fax: +1-951 781-5700
www.bourns.com

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
SRN8040TA Series - Semi-shielded Power Inductors

Temperature Rise vs. Current

Inductance vs. Current

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SRN8040TA Series - Semi-shielded Power Inductors

Soldering Profile

Preheating
Soldering
Natural Cooling

Temperature (°C)

T_p (280 °C, 10 Sec. Max.)

Time (Seconds)

Packaging Specifications

Dimensions: MM

REV. 12/17

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