Features
- Semi-shielded construction
- Inductance range: 1 to 470 µH
- Rated current up to 8 A
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

SRN6045TA Series - Semi-shielded Power Inductors

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 1 MHz / 1 V</th>
<th>Q (Min.)</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>SRN6045TA-1R0Y</td>
<td>1.0 ± 30</td>
<td>15</td>
<td>110</td>
<td>10</td>
<td>8.00</td>
<td>13.50</td>
</tr>
<tr>
<td>SRN6045TA-1R2Y</td>
<td>1.2 ± 30</td>
<td>15</td>
<td>90</td>
<td>10.5</td>
<td>7.50</td>
<td>12.5</td>
</tr>
<tr>
<td>SRN6045TA-1R5Y</td>
<td>1.5 ± 30</td>
<td>15</td>
<td>75</td>
<td>11.7</td>
<td>7.00</td>
<td>12.0</td>
</tr>
<tr>
<td>SRN6045TA-2R2Y</td>
<td>2.2 ± 30</td>
<td>15</td>
<td>55</td>
<td>15</td>
<td>6.00</td>
<td>9.50</td>
</tr>
<tr>
<td>SRN6045TA-3R3Y</td>
<td>3.3 ± 30</td>
<td>15</td>
<td>45</td>
<td>21</td>
<td>5.00</td>
<td>7.80</td>
</tr>
<tr>
<td>SRN6045TA-4R7M</td>
<td>4.7 ± 20</td>
<td>15</td>
<td>40</td>
<td>26</td>
<td>4.50</td>
<td>6.80</td>
</tr>
<tr>
<td>SRN6045TA-6R3M</td>
<td>6.3 ± 20</td>
<td>15</td>
<td>35</td>
<td>33</td>
<td>3.80</td>
<td>5.90</td>
</tr>
<tr>
<td>SRN6045TA-6R8M</td>
<td>6.8 ± 20</td>
<td>15</td>
<td>30</td>
<td>34</td>
<td>3.60</td>
<td>5.70</td>
</tr>
<tr>
<td>SRN6045TA-8R2M</td>
<td>8.2 ± 20</td>
<td>15</td>
<td>27</td>
<td>46</td>
<td>3.40</td>
<td>5.10</td>
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<tr>
<td>SRN6045TA-100M</td>
<td>10 ± 20</td>
<td>15</td>
<td>25</td>
<td>52</td>
<td>3.20</td>
<td>4.60</td>
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<tr>
<td>SRN6045TA-120M</td>
<td>12 ± 20</td>
<td>15</td>
<td>22</td>
<td>65</td>
<td>3.00</td>
<td>4.00</td>
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<tr>
<td>SRN6045TA-150M</td>
<td>15 ± 20</td>
<td>15</td>
<td>20</td>
<td>71</td>
<td>2.80</td>
<td>3.80</td>
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<tr>
<td>SRN6045TA-220M</td>
<td>22 ± 20</td>
<td>15</td>
<td>17</td>
<td>96</td>
<td>2.30</td>
<td>3.30</td>
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<tr>
<td>SRN6045TA-330M</td>
<td>33 ± 20</td>
<td>15</td>
<td>13</td>
<td>145</td>
<td>1.80</td>
<td>2.50</td>
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<td>SRN6045TA-470M</td>
<td>47 ± 20</td>
<td>15</td>
<td>12</td>
<td>200</td>
<td>1.60</td>
<td>2.00</td>
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<td>SRN6045TA-560M</td>
<td>56 ± 20</td>
<td>15</td>
<td>11</td>
<td>230</td>
<td>1.40</td>
<td>1.80</td>
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<td>SRN6045TA-680M</td>
<td>68 ± 20</td>
<td>15</td>
<td>10</td>
<td>305</td>
<td>1.10</td>
<td>1.60</td>
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<tr>
<td>SRN6045TA-820M</td>
<td>82 ± 20</td>
<td>15</td>
<td>9</td>
<td>365</td>
<td>0.98</td>
<td>1.50</td>
</tr>
<tr>
<td>SRN6045TA-101M</td>
<td>100 ± 20</td>
<td>15</td>
<td>8.5</td>
<td>456</td>
<td>0.92</td>
<td>1.33</td>
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<td>SRN6045TA-121M</td>
<td>120 ± 20</td>
<td>15</td>
<td>7</td>
<td>500</td>
<td>0.85</td>
<td>1.20</td>
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<td>SRN6045TA-151M</td>
<td>150 ± 20</td>
<td>15</td>
<td>6.5</td>
<td>626</td>
<td>0.75</td>
<td>1.10</td>
</tr>
<tr>
<td>SRN6045TA-181M</td>
<td>180 ± 20</td>
<td>15</td>
<td>6</td>
<td>745</td>
<td>0.68</td>
<td>1.00</td>
</tr>
<tr>
<td>SRN6045TA-221M</td>
<td>220 ± 20</td>
<td>15</td>
<td>5</td>
<td>900</td>
<td>0.60</td>
<td>0.88</td>
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<tr>
<td>SRN6045TA-331K</td>
<td>330 ± 10</td>
<td>15</td>
<td>4</td>
<td>1400</td>
<td>0.55</td>
<td>0.60</td>
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<tr>
<td>SRN6045TA-471K</td>
<td>470 ± 10</td>
<td>15</td>
<td>3</td>
<td>2050</td>
<td>0.40</td>
<td>0.50</td>
</tr>
</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) ....... 24.710⁹ hours
- Mean Time Between Failures (MTBF) ....... 40.4 x 10⁶ hours
- Moisture Sensitivity Level .......... 1
- ESD Classification .............. N/A

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

Product Dimensions

Electrical Schematic

Recommended Layout

How to Order

Model
SRN6045TA - 100M

Value Code (see table)

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.
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SRN6045TA Series - Semi-shielded Power Inductors

**Temperature Rise vs. Current**

![Temperature Rise vs. Current Graph](image)

**Inductance vs. Current**

![Inductance vs. Current Graph 1](image)

![Inductance vs. Current Graph 2](image)

![Inductance vs. Current Graph 3](image)

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Soldering Profile

Packaging Specifications

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