Features

- Shielded construction
- Inductance range: 1.0 to 100 μH
- Heating current up to 5 A
- Dimensions: 6.7 x 6.7 x 4 mm
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

SRR6040A Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 10 kHz / 1 V</th>
<th>DCR (Ω) Typ.</th>
<th>DCR (Ω) Max.</th>
<th>I rms (A)</th>
<th>I sat (A)</th>
<th>***K-Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRR6040A-1ROY</td>
<td>1.0 ± 30</td>
<td>0.0098</td>
<td>0.015</td>
<td>5.0</td>
<td>5.55</td>
<td>388</td>
</tr>
<tr>
<td>SRR6040A-3ROY</td>
<td>3.0 ± 30</td>
<td>0.0153</td>
<td>0.021</td>
<td>3.5</td>
<td>3.33</td>
<td>233</td>
</tr>
<tr>
<td>SRR6040A-5ROY</td>
<td>5.0 ± 30</td>
<td>0.0184</td>
<td>0.025</td>
<td>2.9</td>
<td>2.63</td>
<td>184</td>
</tr>
<tr>
<td>SRR6040A-6R8Y</td>
<td>6.8 ± 30</td>
<td>0.0223</td>
<td>0.03</td>
<td>2.5</td>
<td>2.17</td>
<td>152</td>
</tr>
<tr>
<td>SRR6040A-8R2Y</td>
<td>8.2 ± 30</td>
<td>0.0266</td>
<td>0.036</td>
<td>2.3</td>
<td>2.0</td>
<td>140</td>
</tr>
<tr>
<td>SRR6040A-100M</td>
<td>10 ± 20</td>
<td>0.0358</td>
<td>0.05</td>
<td>2.0</td>
<td>1.72</td>
<td>120</td>
</tr>
<tr>
<td>SRR6040A-120M</td>
<td>12 ± 20</td>
<td>0.0397</td>
<td>0.055</td>
<td>1.7</td>
<td>1.61</td>
<td>113</td>
</tr>
<tr>
<td>SRR6040A-150M</td>
<td>15 ± 20</td>
<td>0.0428</td>
<td>0.06</td>
<td>1.6</td>
<td>1.51</td>
<td>106</td>
</tr>
<tr>
<td>SRR6040A-180M</td>
<td>18 ± 20</td>
<td>0.0551</td>
<td>0.075</td>
<td>1.5</td>
<td>1.35</td>
<td>94</td>
</tr>
<tr>
<td>SRR6040A-220M</td>
<td>22 ± 20</td>
<td>0.0647</td>
<td>0.087</td>
<td>1.3</td>
<td>1.22</td>
<td>85</td>
</tr>
<tr>
<td>SRR6040A-270M</td>
<td>27 ± 20</td>
<td>0.0769</td>
<td>0.105</td>
<td>1.2</td>
<td>1.11</td>
<td>78</td>
</tr>
<tr>
<td>SRR6040A-330M</td>
<td>33 ± 20</td>
<td>0.0903</td>
<td>0.12</td>
<td>1.1</td>
<td>1.02</td>
<td>71</td>
</tr>
<tr>
<td>SRR6040A-390M</td>
<td>39 ± 20</td>
<td>0.103</td>
<td>0.135</td>
<td>1.0</td>
<td>0.94</td>
<td>66</td>
</tr>
<tr>
<td>SRR6040A-470M</td>
<td>47 ± 20</td>
<td>0.123</td>
<td>0.16</td>
<td>0.95</td>
<td>0.85</td>
<td>59</td>
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<tr>
<td>SRR6040A-560M</td>
<td>56 ± 20</td>
<td>0.149</td>
<td>0.19</td>
<td>0.86</td>
<td>0.77</td>
<td>54</td>
</tr>
<tr>
<td>SRR6040A-680M</td>
<td>68 ± 20</td>
<td>0.187</td>
<td>0.24</td>
<td>0.75</td>
<td>0.7</td>
<td>49</td>
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<tr>
<td>SRR6040A-820M</td>
<td>82 ± 20</td>
<td>0.22</td>
<td>0.29</td>
<td>0.7</td>
<td>0.63</td>
<td>44</td>
</tr>
<tr>
<td>SRR6040A-101M</td>
<td>100 ± 20</td>
<td>0.266</td>
<td>0.345</td>
<td>0.65</td>
<td>0.57</td>
<td>40</td>
</tr>
</tbody>
</table>

***K-Factor: To calculate core flux density, Bp-p (gauss) = K x L(μH) x ΔI (peak-to-peak ripple current, A), determine core loss from Core Loss vs. Flux Density plot.

### General Specifications

- Operating Temperature: -40 °C to +125 °C (Temperature rise included)
- Storage Temperature: -40 °C to +125 °C
- Resistance to Solder Heat: +250°C for 10 sec.
- Temperature Rise: 30 °C typ. at rated Irms
- Inductance drop: 35 % at Isat

### Materials

- Core: Ferrite
- Wire: Enameled copper
- Terminal Finish: Sn
- Packaging: 1000 pcs. per reel

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

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**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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SRR6040A Series - Shielded Power Inductors

**Inductance vs. IDC**

**Temperature Rise vs. IDC**

**How to Order**

<table>
<thead>
<tr>
<th>Model</th>
<th>Value Code (see table)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRR6040A - 100M</td>
<td></td>
</tr>
</tbody>
</table>

**Electrical Schematic**

- Schematic diagram of an inductor.

**How to Order**

- **Model:** SRR6040A - 100M
- **Value Code (see table):**

**Specifications are subject to change without notice.**

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SRR6040A Series - Shielded Power Inductors

Soldering Profile

Packaging Specifications
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