SRR0745A Series - Shielded Power Inductors

Features
- Shielded construction
- Inductance range: 10 to 1000 μH
- Heating current up to 2.1 A
- Dimensions: 7.3 x 7.3 x 4.5 mm
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 1 kHz / 1 V</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>SRR0745A-100M</td>
<td>10 ±20</td>
<td>0.052</td>
<td>2.1</td>
<td>2.5</td>
<td>112</td>
</tr>
<tr>
<td>SRR0745A-120M</td>
<td>12 ±20</td>
<td>0.062</td>
<td>2.0</td>
<td>2.3</td>
<td>98</td>
</tr>
<tr>
<td>SRR0745A-150M</td>
<td>15 ±20</td>
<td>0.075</td>
<td>1.9</td>
<td>2.1</td>
<td>88</td>
</tr>
<tr>
<td>SRR0745A-180M</td>
<td>18 ±20</td>
<td>0.09</td>
<td>1.8</td>
<td>1.95</td>
<td>83</td>
</tr>
<tr>
<td>SRR0745A-220M</td>
<td>22 ±20</td>
<td>0.096</td>
<td>1.65</td>
<td>1.75</td>
<td>72</td>
</tr>
<tr>
<td>SRR0745A-270M</td>
<td>27 ±20</td>
<td>0.13</td>
<td>1.45</td>
<td>1.62</td>
<td>66</td>
</tr>
<tr>
<td>SRR0745A-330M</td>
<td>33 ±20</td>
<td>0.15</td>
<td>1.35</td>
<td>1.45</td>
<td>59</td>
</tr>
<tr>
<td>SRR0745A-390M</td>
<td>39 ±20</td>
<td>0.19</td>
<td>1.17</td>
<td>1.3</td>
<td>55</td>
</tr>
<tr>
<td>SRR0745A-470M</td>
<td>47 ±20</td>
<td>0.21</td>
<td>1.05</td>
<td>1.2</td>
<td>50</td>
</tr>
<tr>
<td>SRR0745A-560M</td>
<td>56 ±20</td>
<td>0.24</td>
<td>0.95</td>
<td>1.1</td>
<td>47</td>
</tr>
<tr>
<td>SRR0745A-680M</td>
<td>68 ±20</td>
<td>0.3</td>
<td>0.86</td>
<td>0.96</td>
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<tr>
<td>SRR0745A-820M</td>
<td>82 ±20</td>
<td>0.4</td>
<td>0.78</td>
<td>0.9</td>
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<tr>
<td>SRR0745A-101M</td>
<td>100 ±20</td>
<td>0.45</td>
<td>0.7</td>
<td>0.78</td>
<td>34</td>
</tr>
<tr>
<td>SRR0745A-121M</td>
<td>120 ±20</td>
<td>0.55</td>
<td>0.6</td>
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<tr>
<td>SRR0745A-151M</td>
<td>150 ±20</td>
<td>0.76</td>
<td>0.48</td>
<td>0.58</td>
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</tr>
<tr>
<td>SRR0745A-181M</td>
<td>180 ±20</td>
<td>0.82</td>
<td>0.46</td>
<td>0.54</td>
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<tr>
<td>SRR0745A-221M</td>
<td>220 ±20</td>
<td>0.95</td>
<td>0.42</td>
<td>0.5</td>
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<tr>
<td>SRR0745A-271M</td>
<td>270 ±20</td>
<td>1.2</td>
<td>0.38</td>
<td>0.46</td>
<td>22</td>
</tr>
<tr>
<td>SRR0745A-331M</td>
<td>330 ±20</td>
<td>1.5</td>
<td>0.34</td>
<td>0.4</td>
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<tr>
<td>SRR0745A-391M</td>
<td>390 ±20</td>
<td>1.85</td>
<td>0.32</td>
<td>0.36</td>
<td>18</td>
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<td>SRR0745A-471M</td>
<td>470 ±20</td>
<td>2.2</td>
<td>0.29</td>
<td>0.34</td>
<td>16</td>
</tr>
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<td>SRR0745A-561M</td>
<td>560 ±20</td>
<td>2.8</td>
<td>0.26</td>
<td>0.3</td>
<td>15</td>
</tr>
<tr>
<td>SRR0745A-681M</td>
<td>680 ±20</td>
<td>2.8</td>
<td>0.24</td>
<td>0.28</td>
<td>13</td>
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<tr>
<td>SRR0745A-821M</td>
<td>820 ±20</td>
<td>3.5</td>
<td>0.22</td>
<td>0.26</td>
<td>12</td>
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<tr>
<td>SRR0745A-102M</td>
<td>1000 ±20</td>
<td>4.1</td>
<td>0.2</td>
<td>0.24</td>
<td>11</td>
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</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
- Temperature Rise: 40 °C typ. at rated I rms
- Inductance drop: 25 % at Isat

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

Recommended Layout

** 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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WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov
SRR0745A Series - Shielded Power Inductors

Inductance vs. IDC

Temperature Rise vs. IDC

How to Order

SRR0745A - 100M

Model
Value Code (see table)

Electrical Schematic

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Soldering Profile

Peak Temperature: 250 °C max.
Max. Peak Temperature -5 °C: 30 sec. max.
Max. Time Above 217 °C: 60~150 sec. max.

-4.0 °C/Sec. Max. 150~200 °C / 60~120 Sec.
+3.0 °C/Sec. Max.
-(1.0~5.0) °C/Sec. Max.

Temperature Rising Area
Preheat Area
Reflow Area
Forced Cooling Area

Packaging Specifications

QTY: 1000 PCS. PER REEL
DIMENSIONS: MM (INCHES)

User Direction of Feed

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