SRU8028A Series - Shielded Power Inductors

Features
- Shielded construction
- Inductance range: 2.5 to 100 µH
- Heating current up to 4.5 A
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance @ 100 KHz / 1 V</th>
<th>Q (Ref.)</th>
<th>Test Freq. (MHz)</th>
<th>SRF (MHz) Typ.</th>
<th>DCR (Ω) Max.</th>
<th>I rms (A)</th>
<th>I sat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRU8028A-2R5Y</td>
<td>2.5 ±30</td>
<td>15</td>
<td>7.96</td>
<td>65</td>
<td>0.018</td>
<td>4.5</td>
<td>4.2</td>
</tr>
<tr>
<td>SRU8028A-3R3Y</td>
<td>3.3 ±30</td>
<td>12</td>
<td>7.96</td>
<td>60</td>
<td>0.023</td>
<td>3.6</td>
<td>3.5</td>
</tr>
<tr>
<td>SRU8028A-4R7Y</td>
<td>4.7 ±30</td>
<td>15</td>
<td>7.96</td>
<td>50</td>
<td>0.026</td>
<td>3.7</td>
<td>3.2</td>
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<tr>
<td>SRU8028A-6R8Y</td>
<td>6.8 ±30</td>
<td>13</td>
<td>7.96</td>
<td>40</td>
<td>0.045</td>
<td>2.8</td>
<td>2.5</td>
</tr>
<tr>
<td>SRU8028A-100Y</td>
<td>10 ±30</td>
<td>22</td>
<td>2.52</td>
<td>35</td>
<td>0.057</td>
<td>2.6</td>
<td>2.2</td>
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<tr>
<td>SRU8028A-150Y</td>
<td>15 ±30</td>
<td>20</td>
<td>2.52</td>
<td>25</td>
<td>0.085</td>
<td>2.0</td>
<td>1.7</td>
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<tr>
<td>SRU8028A-220Y</td>
<td>22 ±30</td>
<td>22</td>
<td>2.52</td>
<td>20</td>
<td>0.13</td>
<td>1.6</td>
<td>1.5</td>
</tr>
<tr>
<td>SRU8028A-330Y</td>
<td>33 ±30</td>
<td>20</td>
<td>2.52</td>
<td>15</td>
<td>0.185</td>
<td>1.3</td>
<td>1.1</td>
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<td>SRU8028A-470Y</td>
<td>47 ±30</td>
<td>14</td>
<td>2.52</td>
<td>12</td>
<td>0.23</td>
<td>1.2</td>
<td>1.0</td>
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<td>SRU8028A-680Y</td>
<td>68 ±30</td>
<td>23</td>
<td>2.52</td>
<td>9</td>
<td>0.39</td>
<td>0.85</td>
<td>0.8</td>
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<tr>
<td>SRU8028A-101Y</td>
<td>100 ±30</td>
<td>20</td>
<td>0.796</td>
<td>8</td>
<td>0.50</td>
<td>0.75</td>
<td>0.7</td>
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</tbody>
</table>

General Specifications

Operating Temperature
-40 °C to +125 °C (Temperature rise included)

Storage Temperature
-40 °C to +125 °C

Resistance to Soldering Heat
+250 °C for 10 sec.

Temperature Rise
40 °C typ. at rated I rms

Inductance Drop
35 % typ. at I sat

Materials
Core: Ferrite
Wire: Enameled copper
Terminal Finish: Ag/Ni/Sn
Packaging: 1500 pcs. per reel

Electrical Schematic

How to Order

Model: SRU8028A - 100Y

Value Code (see table)

Recommended Layout

 asia-pacific: Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116
Europe: Tel: +41-41 768 5555 • Fax: +41-41 768 5510
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.
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Soldering Profile

L vs. IDC

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**Temperature vs. IDC**

- **SRU8028A-2R5Y**
  - \( \Delta T @ 25 ^\circ C \)
  - Graph showing \( \Delta T \) vs. IDC for different currents.

- **SRU8028A-220Y**
  - \( \Delta T @ 25 ^\circ C \)
  - Graph showing \( \Delta T \) vs. IDC for different currents.

- **SRU8028A-6R8Y**
  - \( \Delta T @ 25 ^\circ C \)
  - Graph showing \( \Delta T \) vs. IDC for different currents.

- **SRU8028A-101Y**
  - \( \Delta T @ 25 ^\circ C \)
  - Graph showing \( \Delta T \) vs. IDC for different currents.

**Packaging Specifications**

- **Dimensions:**
  - DIA.: 330 (12.99) mm
  - DIA.: 22.4 (0.880) mm
  - DIA.: 21.0 ± 0.5 (0.827 ± 0.020) mm
  - DIA.: 13.0 ± 0.5 (0.512 ± 0.020) mm
  - Width: 16 (0.630) mm
  - Thickness: 0.19 (0.04) mm MAX.

- **Markings:**
  - Embossed Cavity

**User Direction of Feed**

- QTY: 1500 pcs. per reel
- Dimensions: MM (INCHES)

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**REV. 09/13**

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