**Features**
- Height of 4.0 mm max.
- Current rating up to 3.5 A
- RoHS compliant*

**Applications**
- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

---

**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Inductance 100 kHz (μH)</th>
<th>Q Ref.</th>
<th>Test Frequency (KHz)</th>
<th>SRF Typ. (MHz)</th>
<th>DCR Max. (mΩ)</th>
<th>I rms (A)</th>
<th>I sat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRR6038-3R3Y</td>
<td>3.3 ±30</td>
<td>9.8</td>
<td>7.96</td>
<td>75.9</td>
<td>20</td>
<td>3.50</td>
<td>3.60</td>
</tr>
<tr>
<td>SRR6038-5R0Y</td>
<td>5.0 ±30</td>
<td>8.9</td>
<td>7.96</td>
<td>42.6</td>
<td>24</td>
<td>2.90</td>
<td>2.95</td>
</tr>
<tr>
<td>SRR6038-6R2Y</td>
<td>6.2 ±30</td>
<td>9.0</td>
<td>7.96</td>
<td>42.3</td>
<td>27</td>
<td>2.50</td>
<td>2.60</td>
</tr>
<tr>
<td>SRR6038-7R4Y</td>
<td>7.4 ±30</td>
<td>7.5</td>
<td>7.96</td>
<td>32.9</td>
<td>31</td>
<td>2.30</td>
<td>2.55</td>
</tr>
<tr>
<td>SRR6038-8R2Y</td>
<td>8.2 ±30</td>
<td>7.4</td>
<td>7.96</td>
<td>29.6</td>
<td>34</td>
<td>2.20</td>
<td>2.45</td>
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<tr>
<td>SRR6038-8R7Y</td>
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<td>7.3</td>
<td>7.96</td>
<td>27.5</td>
<td>34</td>
<td>2.20</td>
<td>2.35</td>
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<td>SRR6038-100Y</td>
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<td>5.25</td>
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<td>38</td>
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<td>2.05</td>
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<td>1.70</td>
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<td>18.0</td>
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<td>1.60</td>
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<td>13.8</td>
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<td>1.50</td>
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<td>SRR6038-220Y</td>
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<td>SRR6038-330Y</td>
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<td>47 ±30</td>
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<td>10.4</td>
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<td>0.95</td>
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<td>0.90</td>
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<td>7.5</td>
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<td>0.87</td>
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<td>SRR6038-820Y</td>
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<td>5.25</td>
<td>7.6</td>
<td>324</td>
<td>0.70</td>
<td>0.75</td>
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<td>SRR6038-101Y</td>
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<td>6.2</td>
<td>358</td>
<td>0.65</td>
<td>0.68</td>
</tr>
</tbody>
</table>

**Soldering Profile**

*<1: Minimum of 10 seconds between +260°C and +255°C*

**General Specifications**

- Test Voltage: 0.1 V
- Reflow Soldering: 230 °C, 50 sec. max.
- Operating Temp.: -40 °C to +125 °C
- Storage Temperature: -20 °C to +125 °C
- Moisture Sensitivity Level: 1
- ESD Classification (HBM): N/A

**Materials**

- Core: Ferrite
- Wire: Enameled copper
- Adhesive: Epoxy resin
- Terminal: Ag/Ni/Sn
- Rated Current: Ind. drop 35% typ. at Isat
- Temperature Rise: 30 °C typ. at rated Irms
- Packaging: 1000 pcs. per reel

**Electrical Schematic**

**Recommended Layout**

**Product Dimensions**

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**WARNING** Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. 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
SRR6038 Series - Shielded SMD Power Inductors

Inductance vs. Current

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