Shielded Power Inductor CU8838-AL

- Soft saturation makes it ideal for VRD/VRM applications
- Special materials eliminate all thermal aging issues.

**Core material**  Iron

**Core and winding loss**  See www.coilcraft.com/coreloss

**Terminations**  RoHS tin-silver over copper.

**Weight**  4.9 g

**Ambient temperature**  –40°C to +85°C with (40°C rise) Irms current.

**Maximum part temperature:** The part may be operated without damage as long its temperature (ambient + self-heating) does not exceed +125°C. **Derating**

**Storage temperature**  Component: –40°C to +125°C.

Tape and reel packaging: –40°C to +80°C

**Resistance to soldering heat**  Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)**  1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**  38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging**  500/13” reel  Plastic tape: 24 mm wide, 0.4 mm thick, 20 mm pocket spacing, 6.5 mm pocket depth

**PCB washing**  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance</th>
<th>DCR (mOhm)</th>
<th>SRF (MHz)</th>
<th>Isat (A)</th>
<th>Irms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CU8838-AL</td>
<td>±20% (µH)</td>
<td>typ</td>
<td>max</td>
<td>10% drop</td>
<td>20% drop</td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>1.75</td>
<td>2.0</td>
<td>100</td>
<td>27</td>
</tr>
</tbody>
</table>

1. When ordering, please specify **packaging** code:

   **CU8838-ALD**
   - **Packaging:**  D= 13” machine-ready reel. EIA-481 embossed plastic tape (500 parts per full reel).
   - **B=** Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter D instead.

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using a Coilcraft SMD-A fixture in an Agilent/HP 4284A LCR meter.
3. SRF measured using an Agilent/HP4291A impedance analyzer and a Coilcraft 16193 fixture.
4. DC current at 25°C that causes the specified inductance drop from its value without current. **Click for temperature derating information.**
5. Current that causes the specified temperature rise from 25°C ambient. **This information is for reference only and does not represent absolute maximum ratings. Click for temperature derating information.**

**Recommended Land Pattern**

Dimensions are in inches

**Click for temperature derating information.**

Please check web site for latest information.
Inductance vs current is unaffected by part temperature up to 125°C.