Shielded Power Inductors – SLC1175

• Ideal for use in multi-phase VRM/VRD regulators and high current/high frequency DC/DC converters.
• Offers inductance values unavailable in other high current series.

Designers’ Kit C467 contains 3 each of select values.
Core material Ferrite
Core and winding loss See www.coilcraft.com/coreloss
Environment RoHS compliant, halogen free
Terminations RoHS compliant matte tin over nickel over copper. Other terminations available at additional cost.
Weight 2.19 – 2.30 g
Ambient temperature –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature +125°C (ambient + temp rise). 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 150/7” reel, 700/13” reel; Plastic tape: 24 mm wide, 0.4 mm thick, 12 mm pocket spacing, 7.62 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 number1</th>
<th>Inductance2 ≤20% (nH)</th>
<th>DCR (mOhms)3 min</th>
<th>max</th>
<th>SRF typ4 (MHz)</th>
<th>Isat (A)5</th>
<th>Irms (A)6</th>
<th>10% drop</th>
<th>20% drop</th>
<th>30% drop</th>
<th>20°C rise</th>
<th>40°C rise</th>
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<tbody>
<tr>
<td>SLC1175-700ME_</td>
<td>70</td>
<td>0.228</td>
<td>0.252</td>
<td>179</td>
<td>83</td>
<td>&gt;100</td>
<td>58</td>
<td>76</td>
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<td>0.228</td>
<td>0.252</td>
<td>144</td>
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<td>SLC1175-301ME_</td>
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</table>

1. When ordering, please specify packaging code:
SLC1175-301MEC
Packaging: C = 7” machine-ready reel. EIA-481 embossed plastic tape (150 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 C instead.
D = 13” machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (700 per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4284.
3. DCR is measured between the two points indicated below.

4. SRF measured using an Agilent/HP 8753ES network analyzer or equivalent.
5. DC current at 25°C that causes the specified inductance drop from its value without current. Click for temperature derating information.
6. 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.
7. Electrical specifications at 25°C.

Irms Testing
Irms testing was performed on 0.75 inch wide × 0.25 inch thick copper traces in still air.
Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
Shielded Power Inductors – SLC1175 Series

L vs Current

L vs Frequency

ESR vs Frequency

Recommended Land Pattern

Dimensions are in inches/mm

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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.