Shielded Power Inductors – SLC7530

- Designed for high-speed switch mode applications
- Can be used as a 1:1 transformer or in SEPIC applications

Designer's Kit C379 contains 3 each of all values.
Designer's Kit C467 contains 3 each of select values.
Core material: Ferrite
Core and winding loss: See www.coilcraft.com/coreloss
Terminations: RoHS compliant matte tin over nickel over copper.
Other terminations available at additional cost.
Weight: 0.44 – 0.47 g
Ambient temperature: -40°C to +85°C (with 40°C rise) I rms 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
Resistence 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: 500/7” reel; 1700/13” reel; Plastic tape: 16 mm wide, 0.33 mm thick, 12 mm pocket spacing, 3.12 mm pocket depth
PCB washing: Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf

Single Conductor

<table>
<thead>
<tr>
<th>Part number</th>
<th>L ±20% (µH)</th>
<th>DCR ±5% (mOhms)</th>
<th>SRF typ (GHz)</th>
<th>Isat (A)</th>
<th>I rms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLC7530S-500ML</td>
<td>0.050</td>
<td>0.123</td>
<td>3.80</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>SLC7530S-640ML</td>
<td>0.064</td>
<td>0.123</td>
<td>3.65</td>
<td>32</td>
<td>40</td>
</tr>
<tr>
<td>SLC7530S-820ML</td>
<td>0.082</td>
<td>0.123</td>
<td>3.75</td>
<td>22</td>
<td>40</td>
</tr>
<tr>
<td>SLC7530S-101ML</td>
<td>0.100</td>
<td>0.123</td>
<td>3.75</td>
<td>20</td>
<td>40</td>
</tr>
</tbody>
</table>

Dual Conductor

<table>
<thead>
<tr>
<th>Part number</th>
<th>Leads connected in parallel</th>
<th>Leads connected in series</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L ±20%² (µH)</td>
<td>DCR ±5%³ (mOhms)</td>
</tr>
<tr>
<td>SLC7530D-500ML</td>
<td>0.050</td>
<td>0.209</td>
</tr>
<tr>
<td>SLC7530D-640ML</td>
<td>0.064</td>
<td>0.209</td>
</tr>
<tr>
<td>SLC7530D-820ML</td>
<td>0.082</td>
<td>0.209</td>
</tr>
<tr>
<td>SLC7530D-101ML</td>
<td>0.100</td>
<td>0.209</td>
</tr>
</tbody>
</table>

1. When ordering, please specify termination and packaging codes:
   SLC7530S-101MLC

Terminations: L = RoHS compliant matte tin over nickel over copper
Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).

Packaging:
C = 7” 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 C instead.
D = 13” machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1700 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4263B LCR meter or equivalent.

3. DCR is measured on a micro-ohmmeter at points indicated in the diagram.

4. SRF measured using an Agilent/HP 8753ES network analyzer and a Coilcraft SMD-D fixture.
5. DC current at 25°C that causes a 20% (typ) inductance drop from its value without current. Click for temperature derating information.
6. Current that causes a 40°C 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.
8. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
Shielded Power Inductors - SLC7530 Series

Typical L vs Current

Single Conductor

Dual Conductor

Typical L vs Frequency

Single Conductor

Dual Conductor
Shielded Power Inductors - SLC7530 Series

Dimensions – Single Conductor

Dimensions are in inches

Recommended Land Pattern

Dimensions are in inches

Typical Temperature Rise vs Current

Dimensions are in inches

Recommended Land Patterns

Dimensions are in inches