**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

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

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

**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.

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### Single Conductor

<table>
<thead>
<tr>
<th>Part number</th>
<th>L±20% (µH)</th>
<th>DCR ±5% (mOhms)</th>
<th>SRF typical (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>

**I rms Testing**

I rms testing was performed on 0.75 inch wide x 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.

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### Dual Conductor

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

1. When ordering, please specify termination and packaging codes:

   - **SLC7530S-101ML**: C467 = RoHS compliant matte tin over nickel over copper
   - **SLC7530S-101ML**: F279 = non-RoHS tin-lead (63/37)

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. Refer to Doc 980 “Soldering Surface Mount Components” before soldering.

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**Packaging (Dual Conductor)**

- **Tape and reel packaging**: –40°C to +80°C
- **Storage temperature**: Component: –40°C to +25°C. Tape and reel packaging: –40°C to +80°C
- **Resistance to soldering heat**: Max three 40 second reflo ws at +260°C, parts cooled to room temperature between cycles
- **Moisture Sensitivity Level (MSL)**: 1 (unlimited floor life at <30°C / 85% relative humidity)
- **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

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**Tools & Support**

- **Web page**: www.coilcraft.com
- **Sample & buy**: Contact sales@coilcraft.com
- **Tools & software**: www.coilcraft.com/developer
- **Support & FAQ**: Contact sales@coilcraft.com

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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

Dimensions are in mm

Recommended Land Pattern

Dimensions – Dual Conductor

Dimensions are in inches

Dimensions are in mm

Winding-to-winding isolation: 25 V maximum

Two conductor mode

Recommended Land Patterns

Typical Temperature Rise vs Current

Temperature rise (from 25°C)

Current (Arms)