







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 matter tin over nickel over copper. Other terminations available at additional cost. **Weight:** 0.44 - 0.47 g

Ambient temperature -40° C to $+85^{\circ}$ C with $(40^{\circ}$ C rise) Irms current. Maximum part temperature $+125^{\circ}$ C (ambient + temp rise). Derating. Storage temperature Component: -40° C to $+125^{\circ}$ C. Tape and reel packaging: -40° C to $+80^{\circ}$ 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)

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

0					
	L±20% ²	DCR ±5% ³	SRF typ ⁴	Isat ⁵	Irms ⁶
Part number ¹	(µH)	(mOhms)	(GHz)	(A)	(A)
SLC7530S-500ML_	0.050	0.123	3.80	50	40
SLC7530S-640ML_	0.064	0.123	3.65	32	40
SLC7530S-820ML_	0.082	0.123	3.75	22	40
SLC7530S-101ML	0.100	0.123	3.75	20	40

Irms Testing

Irms testing was performed on 0.75 inch wide \times 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.

Leads connected in series

Dual Conductor

Leads connected in parallel

Part number ¹	L ±20% ² (μΗ)	DCR ±5% ³ (mOhms)	SRF typ ⁴ (GHz)	Isat⁵ (A)	Irms ⁶ (A)	L ±20% ² (μΗ)	DCR max ³ (mOhms)	SRF typ ⁴ (GHz)	Isat⁵ (A)	Irms ⁶ (A)
SLC7530D-500ML_	0.050	0.209	3.75	50	38	0.188	1.00	1.50	21	28
SLC7530D-640ML_	0.064	0.209	3.65	32	38	0.272	1.00	1.30	14	28
SLC7530D-820ML_	0.082	0.209	3.75	22	38	0.350	1.00	1.20	11	28
SLC7530D-101ML_	0.100	0.209	3.75	20	38	0.400	1.00	0.950	8	28

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

SLC7530S-101MLC

- Termination: 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). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).
 - B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.
 - D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1700 parts per full reel).



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- 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.



- 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.
- 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 362 "Soldering Surface Mount Components" before soldering.

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Shielded Power Inductors - SLC7530 Series

Typical L vs Current



Single Conductor



Measured with leads connected in series -101 -820 -640 nductance (µH) -500 Measured with leads connected in parallel 0.1 101 -820 -640 0.01 10 100 0.1 1 Current (A)

Typical L vs Frequency

Single Conductor



Dual Conductor

Dual Conductor





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AEC

Shielded Power Inductors - SLC7530 Series

1



Dimensions – Single Conductor



inches Dimensions are in mm

4





04

Winding 2

-0 3





Parallel mode



Typical Temperature Rise vs Current



inches Dimensions are in mm

Winding-to-winding isolation: 25 V

maximum

10

Winding 1

 2°

Two conductor mode

Recommended Land Patterns



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