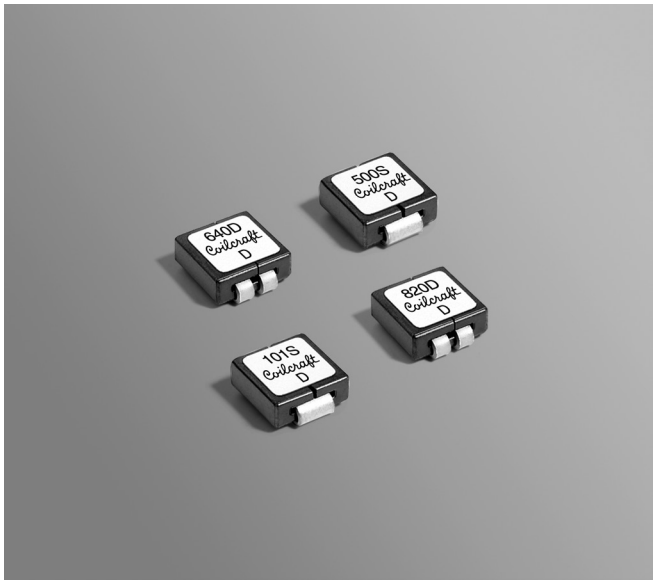
Shielded Power Inductors – SLC7530



- 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) 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 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

Part number[1]	L±20%[2] (µH)	DCR ±5%[3] (mOhms)	SRF typ[4] (GHz)	Isat[5] (A)	Irms[6] (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

Dual Conductor

	Leads connected in parallel					Leads connected in series				
Part number[1]	L±20%[2] (µH)	DCR ±5%[3] (mOhms)	SRF typ[4] (GHz)	Isat[5] (A)	Irms[6] (A)	L±20%[2] (µH)	DCR max[3] (mOhms)	SRF typ[4] (GHz)	Isat[5] (A)	Irms[6] (A)
SLC7530D-500ML_	0.050	0.209	3.75	50	38	0.188	1.00	1.50	21	17
SLC7530D-640ML_	0.064	0.209	3.65	32	38	0.272	1.00	1.30	14	17
SLC7530D-820ML_	0.082	0.209	3.75	22	38	0.350	1.00	1.20	11	17
SLC7530D-101ML_	0.100	0.209	3.75	20	38	0.400	1.00	0.950	8	17

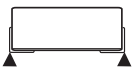
1. When ordering, please specify **termination** and **packaging** codes:

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).
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.



▲Points used for measuring DCR

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 362 "Soldering Surface Mount Components" before soldering.

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Coilcraft®
www.coilcraft.com

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China +86-21-6218 8074 sales@coilcraft.com.cn
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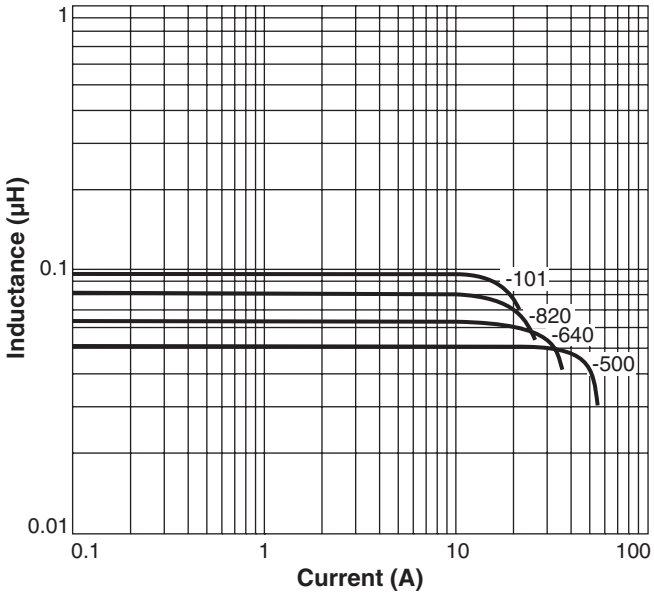
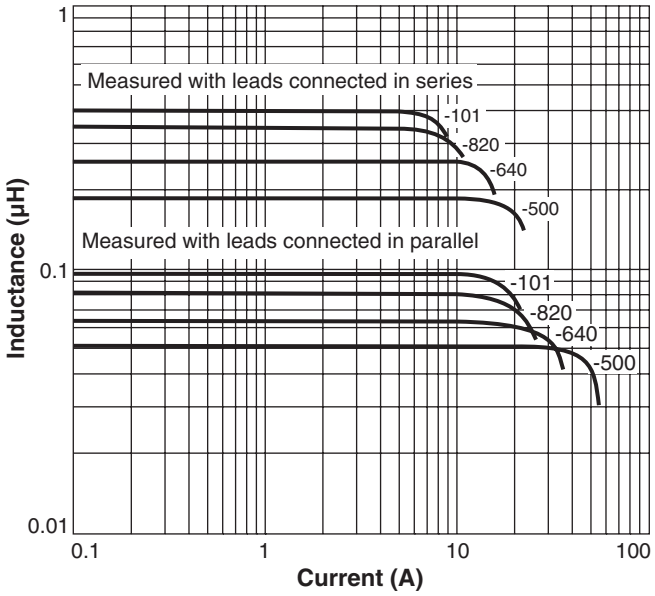
Shielded Power Inductors - SLC7530 Series

Typical L vs Current

Single Conductor

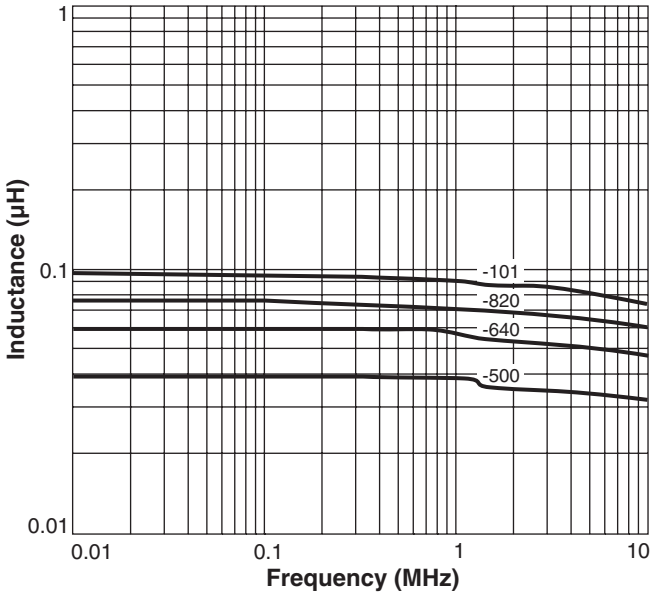


Dual Conductor

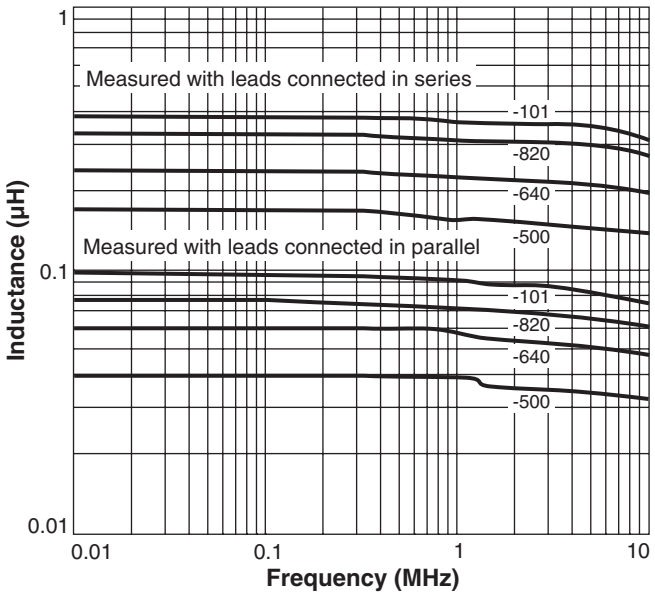


Typical L vs Frequency

Single Conductor



Dual Conductor



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www.coilcraft.com

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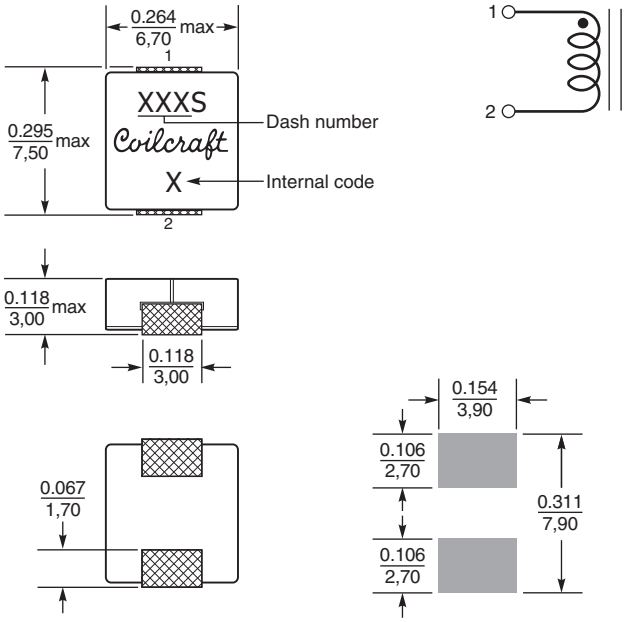
Shielded Power Inductors - SLC7530 Series

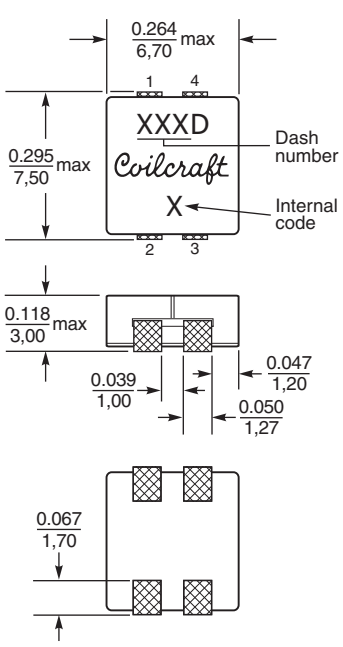
Dimensions – Single Conductor

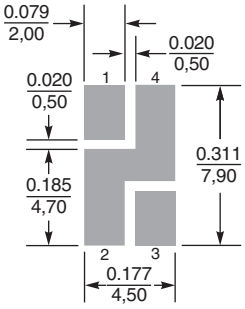


Recommended Land Pattern

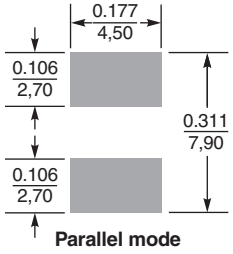
Dimensions are in inches / mm

Dimensions – Dual Conductor

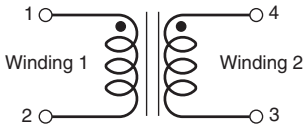




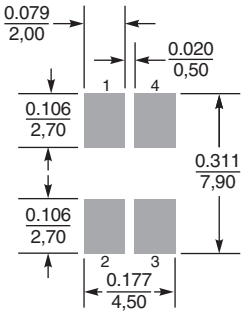
Series mode



Parallel mode



Winding-to-winding isolation: 25 V maximum

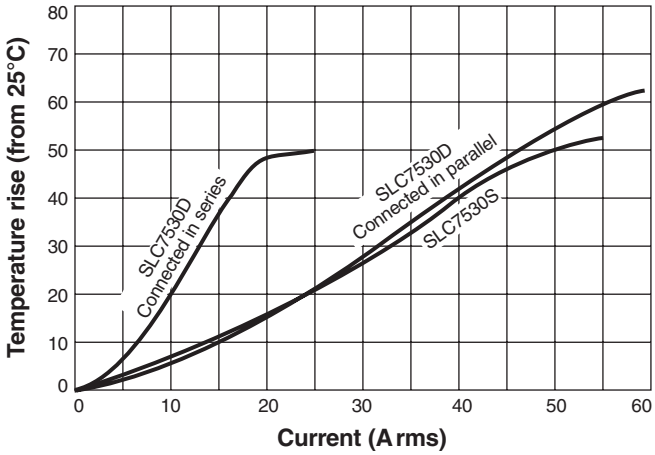


Two conductor mode

Recommended Land Patterns

Dimensions are in inches / mm

Typical Temperature Rise vs Current



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