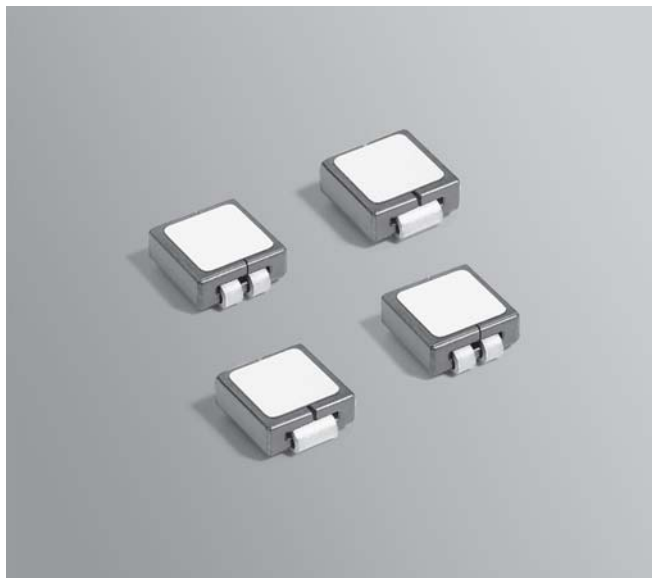




# Shielded Power Inductors – SLC7530



- 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.

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://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  $I_{rms}$  current, +85°C to +125°C with derated current

**Storage temperature** Component: –40°C to +125°C.

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** Only pure water or alcohol recommended

## Single Conductor

Part number <sup>1</sup>	$L \pm 20\%$ <sup>2</sup> ( $\mu\text{H}$ )	DCR $\pm 5\%$ <sup>3</sup> (mOhms)	SRF typ <sup>4</sup> (GHz)	Isat <sup>5</sup> (A)	Irms <sup>6</sup> (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 <sup>1</sup>	$L \pm 20\%$ <sup>2</sup> ( $\mu\text{H}$ )	DCR $\pm 5\%$ <sup>3</sup> (mOhms)	SRF typ <sup>4</sup> (GHz)	Isat <sup>5</sup> (A)	Irms <sup>6</sup> (A)	$L \pm 20\%$ <sup>2</sup> ( $\mu\text{H}$ )	DCR max <sup>3</sup> (mOhms)	SRF typ <sup>4</sup> (GHz)	Isat <sup>5</sup> (A)	Irms <sup>6</sup> (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:

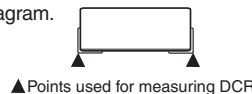
SLC7530S-101ML C

**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 which the inductance drops 20% (typ) from its value without current.

6. Current that causes a 40°C rise from 25°C ambient.

7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**SPICE models**

ON OUR WEB SITE OR CD

**Coilcraft**<sup>®</sup>

Specifications subject to change without notice.  
 Please check our website for latest information.

Document 366-1 Revised 03/18/10

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

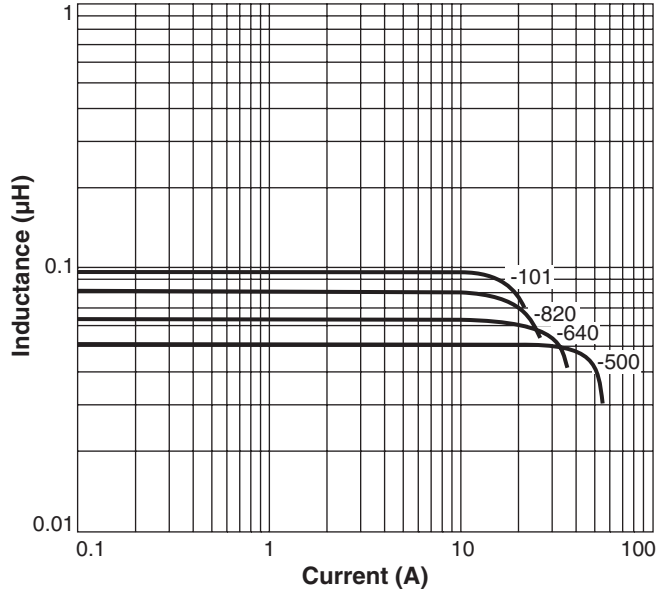
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



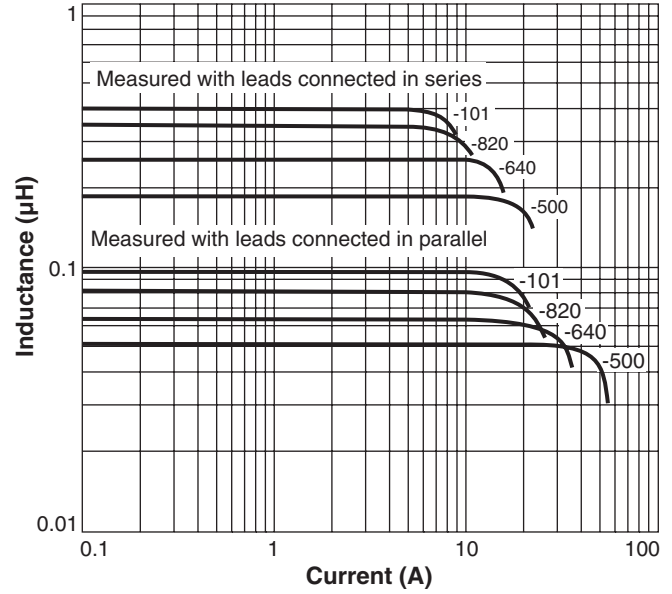
# SMT Power Inductors - SLC7530 Series

## Typical L vs Current

### Single Conductor

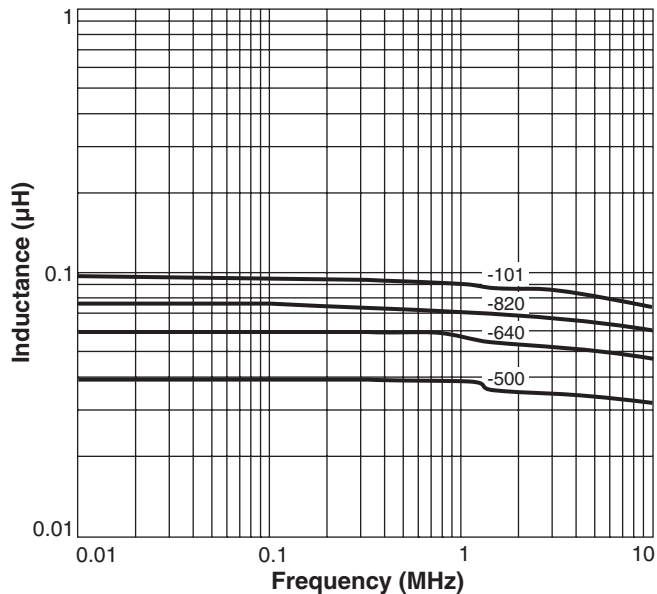


### Dual Conductor

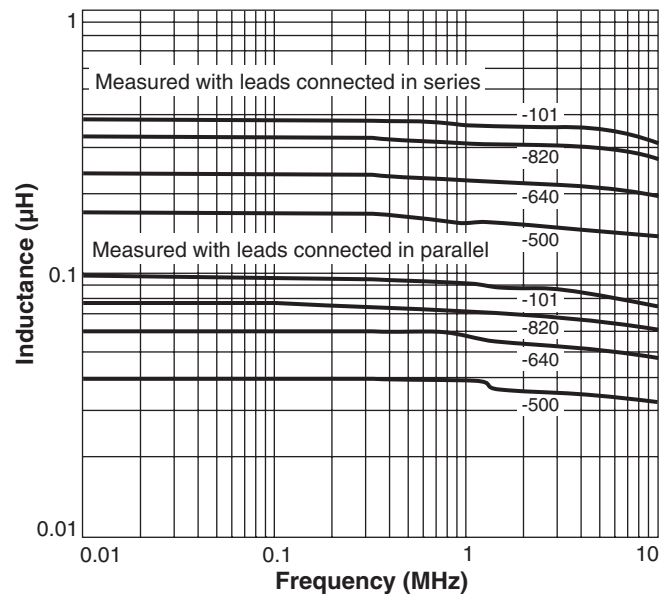


## Typical L vs Frequency

### Single Conductor



### Dual Conductor



Specifications subject to change without notice.  
Please check our website for latest information.

Document 366-2 Revised 03/18/10

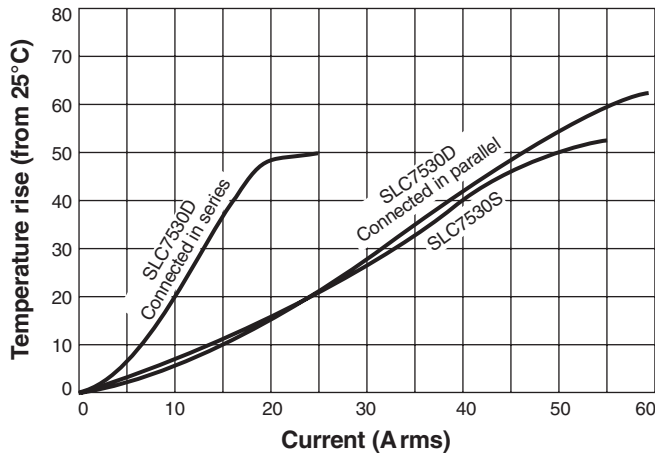
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>

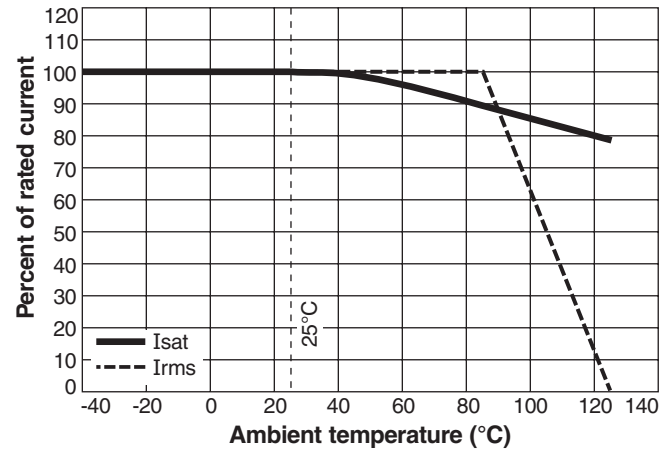


# SMT Power Inductors - SLC7530 Series

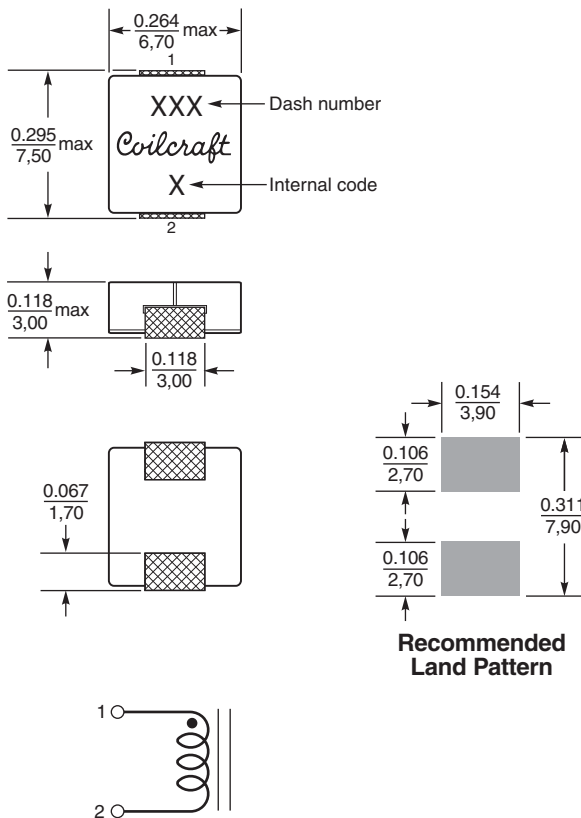
## Typical Temperature Rise vs Current



## Current Derating

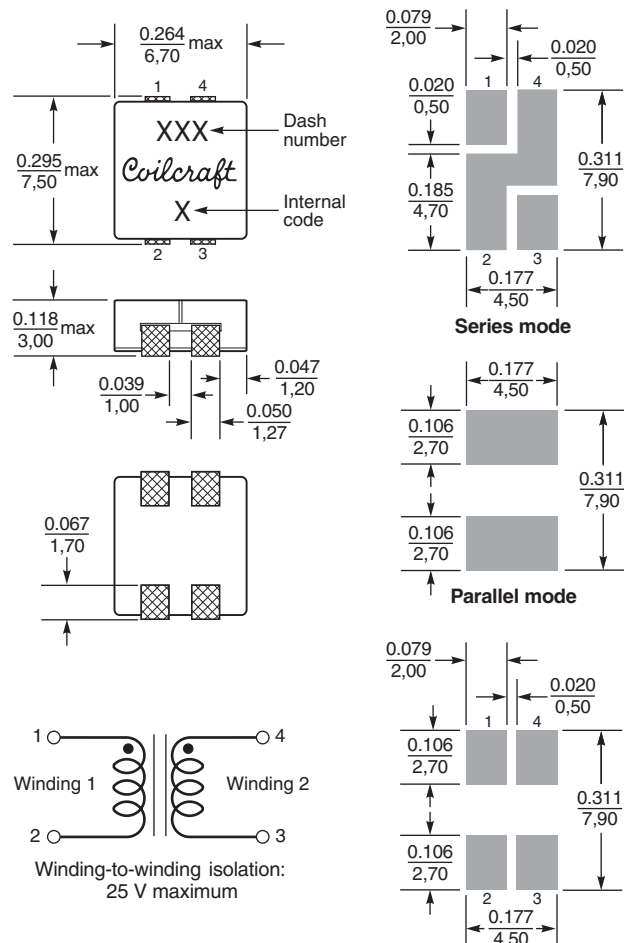


## Dimensions – Single Conductor



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

## Dimensions – Dual Conductor



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



Specifications subject to change without notice. Please check our website for latest information.

Document 366-3 Revised 03/18/10

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>