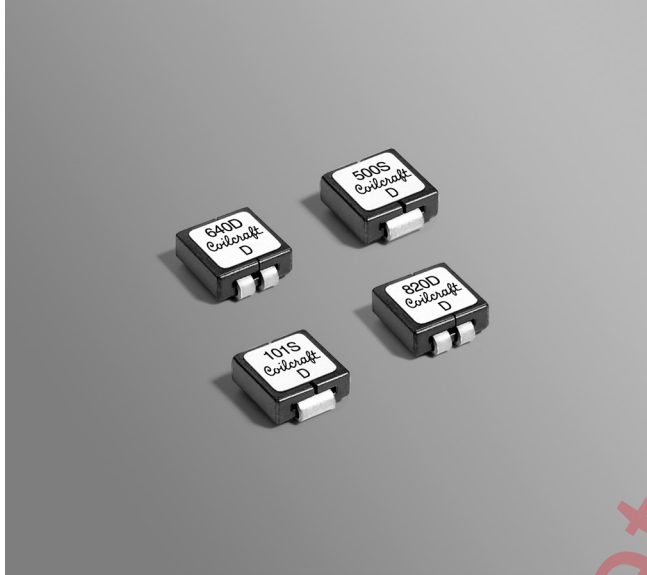


# Shielded Power Inductors – SLC7530



- 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](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 (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 <sup>1</sup> | L±20% <sup>2</sup><br>(μH) | DCR ±5% <sup>3</sup><br>(mOhms) | SRF typ <sup>4</sup><br>(GHz) | Isat <sup>5</sup><br>(A) | Irms <sup>6</sup><br>(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 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.

## Dual Conductor

### Leads connected in parallel

### Leads connected in series

| Part number <sup>1</sup> | L±20% <sup>2</sup><br>(μH) | DCR ±5% <sup>3</sup><br>(mOhms) | SRF typ <sup>4</sup><br>(GHz) | Isat <sup>5</sup><br>(A) | Irms <sup>6</sup><br>(A) | L±20% <sup>2</sup><br>(μH) | DCR max <sup>3</sup><br>(mOhms) | SRF typ <sup>4</sup><br>(GHz) | Isat <sup>5</sup><br>(A) | Irms <sup>6</sup><br>(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:

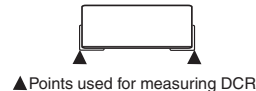
**SLC7530S-101MLC**

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



[www.coilcraft.com](http://www.coilcraft.com)

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Document 366-1 Revised 08/30/18

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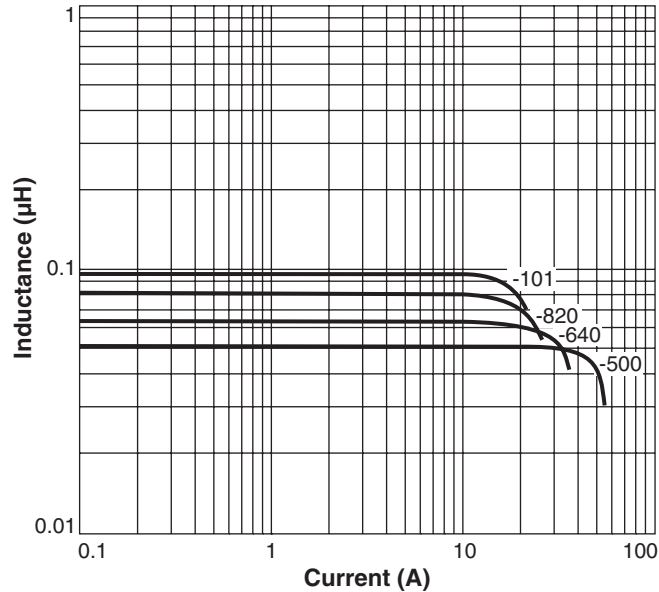
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.



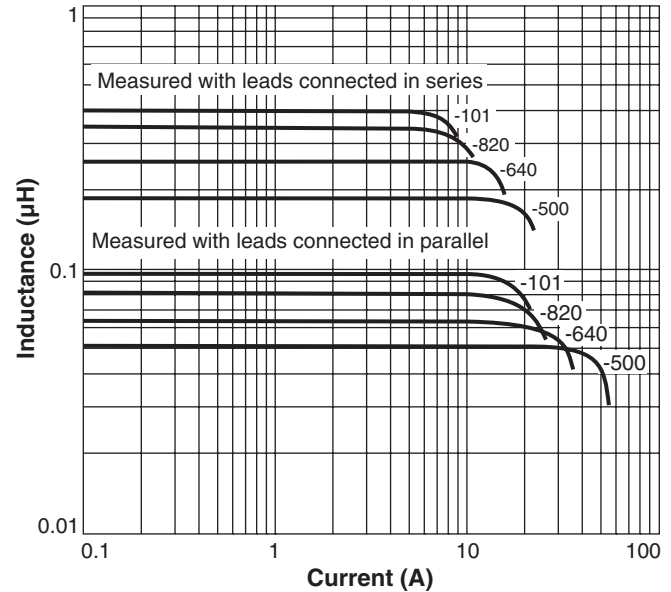
# Shielded Power Inductors - SLC7530 Series

## Typical L vs Current

### Single Conductor

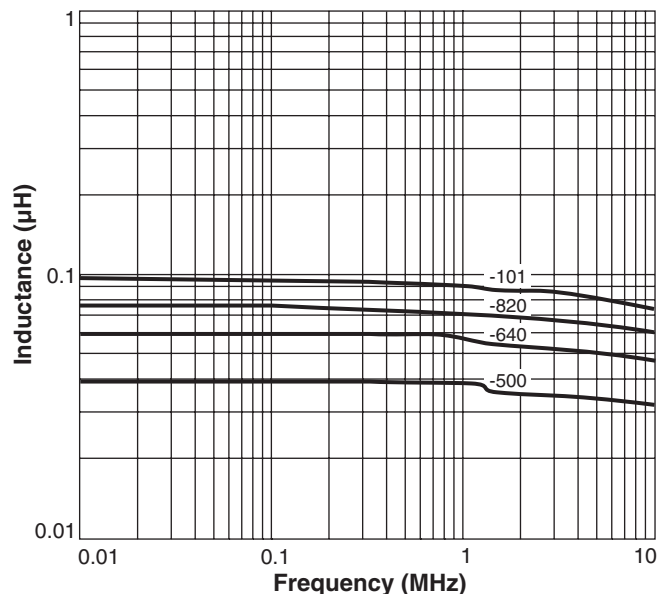


### Dual Conductor

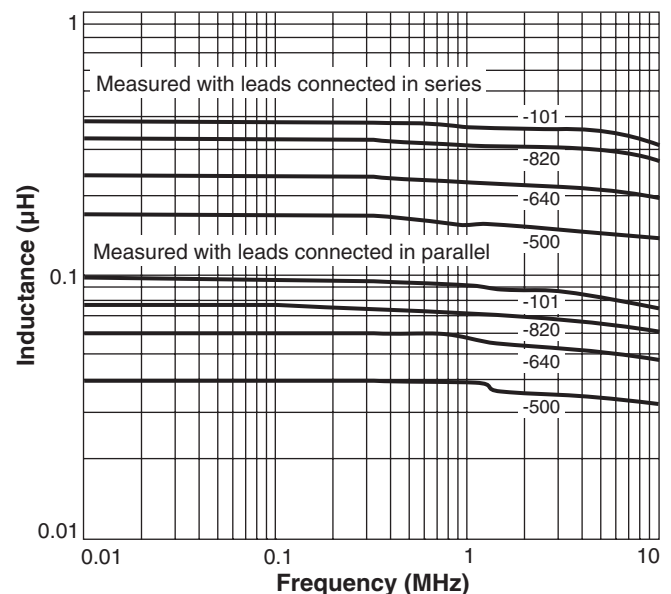


## Typical L vs Frequency

### Single Conductor



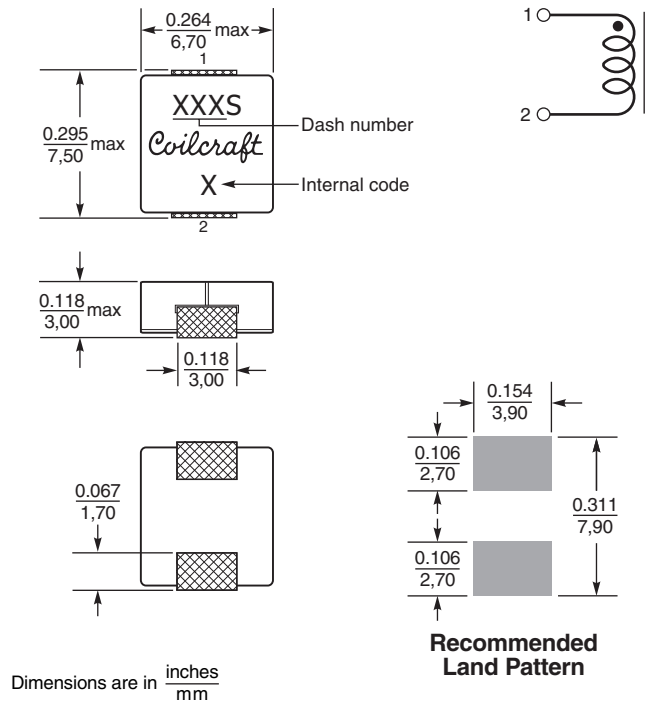
### Dual Conductor



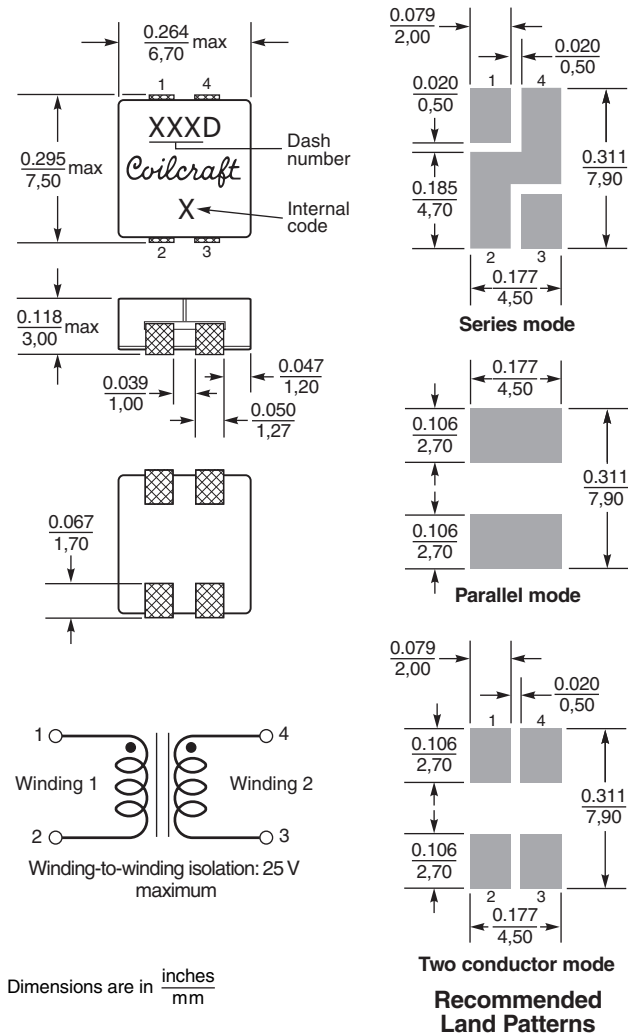


# Shielded Power Inductors - SLC7530 Series

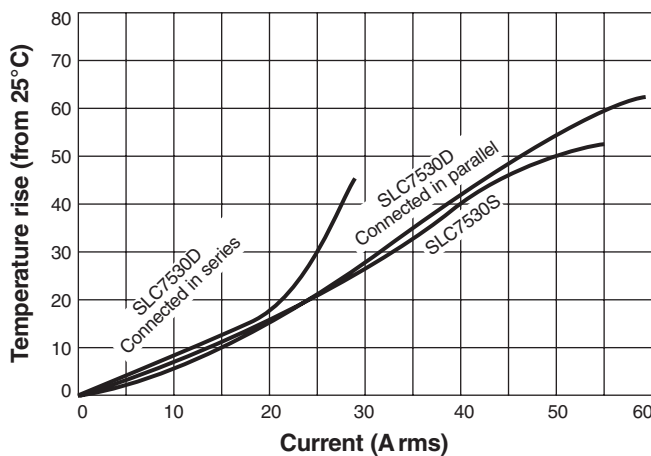
## Dimensions – Single Conductor



## Dimensions – Dual Conductor



## Typical Temperature Rise vs Current



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# Mouser Electronics

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## Coilcraft:

[SLC7530D-820MLC](#) [SLC7530S-500MLC](#) [SLC7530S-101MLB](#) [SLC7530D-640MLC](#) [SLC7530S-640MLB](#) [SLC7530D-500MLC](#) [SLC7530S-820MLB](#) [SLC7530D-101MLB](#) [SLC7530D-500MLB](#) [SLC7530D-101MLC](#) [SLC7530S-640MLC](#) [SLC7530S-500MLB](#) [SLC7530S-820MLC](#) [SLC7530D-640MLB](#) [SLC7530D-820MLB](#) [SLC7530S-101MLC](#)