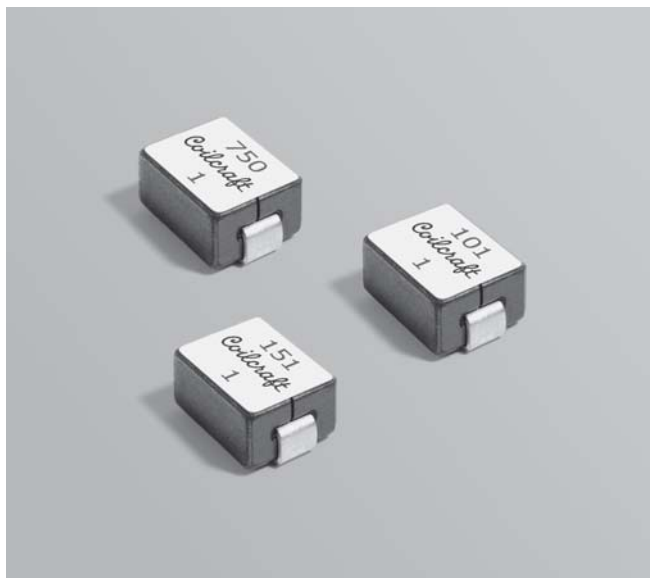




# SMT Power Inductors - SLC1049 Series



- Designed for use in multi-phase VRM/VRD regulators and high current/high frequency DC/DC converters.
- Requires only 70 mm<sup>2</sup> of board space; can handle up to 61 A

**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** 1.25 – 1.30 g

**Ambient temperature** –40°C to +85°C with I<sub>rms</sub> 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)

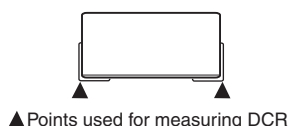
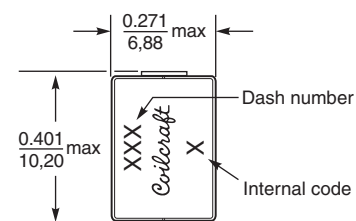
**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

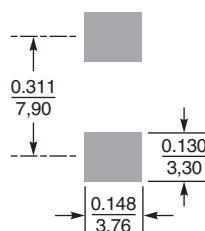
**Packaging** 250/7" reel; 1000/13" reel Plastic tape: 24 mm wide, 0.35 mm thick, 12 mm pocket spacing, 5.08 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

| Part number <sup>1</sup> | L<br>±20% <sup>2</sup><br>(μH) | DCR ±5% <sup>3</sup><br>(mOhms) | SRF<br>typ <sup>4</sup><br>(MHz) | Isat <sup>5</sup><br>(A) | I <sub>rms</sub> <sup>6</sup><br>(A) |
|--------------------------|--------------------------------|---------------------------------|----------------------------------|--------------------------|--------------------------------------|
| SLC1049-750ML_           | 0.075                          | 0.273                           | 200                              | 61.0                     | 43.0                                 |
| SLC1049-101ML_           | 0.100                          | 0.273                           | 145                              | 50.0                     | 43.0                                 |
| SLC1049-121ML_           | 0.125                          | 0.273                           | 140                              | 37.0                     | 43.0                                 |
| SLC1049-151ML_           | 0.150                          | 0.273                           | 133                              | 30.0                     | 43.0                                 |



## Recommended Land Pattern



Dimensions are in inches  
mm

- When ordering, please specify **termination** and **packaging** codes:

**SLC1049-151KLC**

**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 (250 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 (1000 per full reel). Factory order only, not stocked.

- Inductance tested at 100 kHz, 0.1 V<sub>rms</sub> using an Agilent/HP 4263B LCR meter or equivalent.
- DCR is measured on a micro-ohmmeter at points indicated in the dimensional diagram.
- SRF measured with coils connected in series using an Agilent/HP 8753ES network analyzer or equivalent.
- DC current at which the inductance drops 20% (typ) from its value without current.
- Current that causes a 40°C temperature rise from 25°C ambient.
- Electrical specifications at 25°C.

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

**Coilcraft**®

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

Document 498-1 Revised 10/20/08

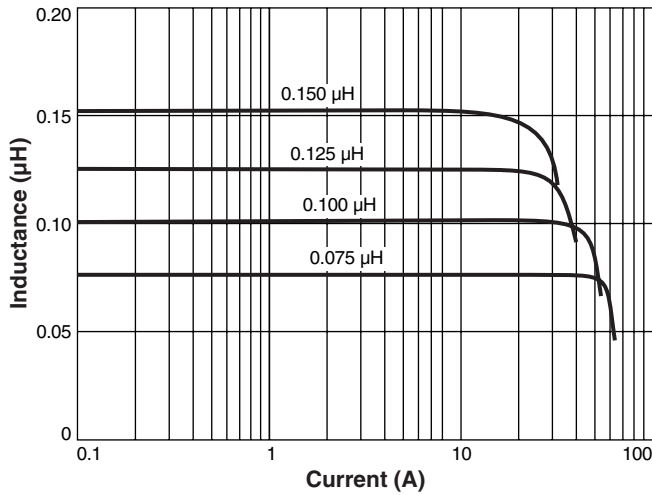
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

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

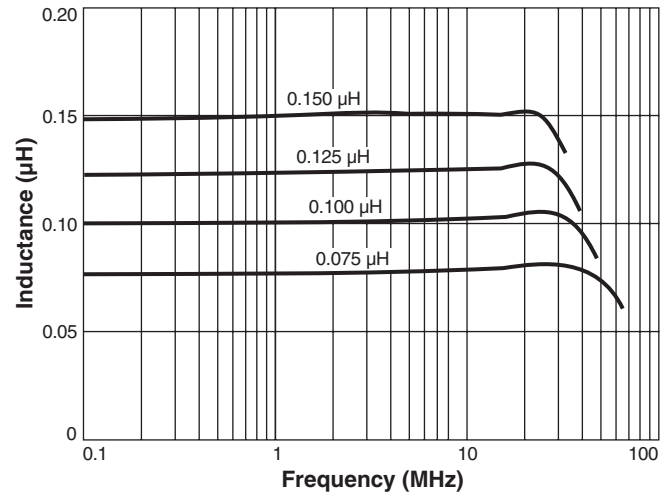


# SMT Power Inductors - SLC1049 Series

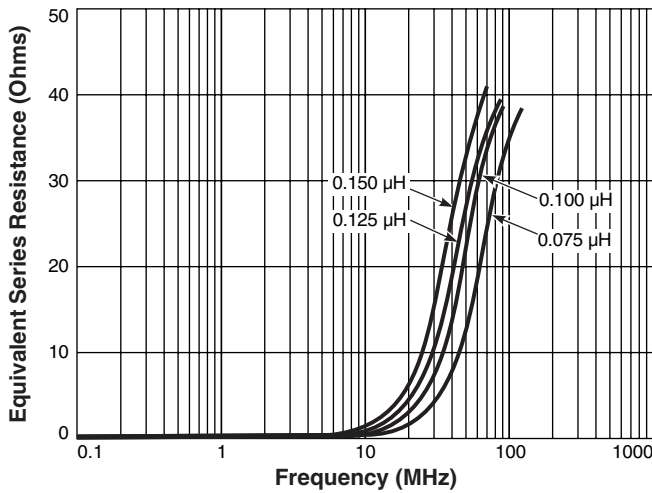
## L vs Current



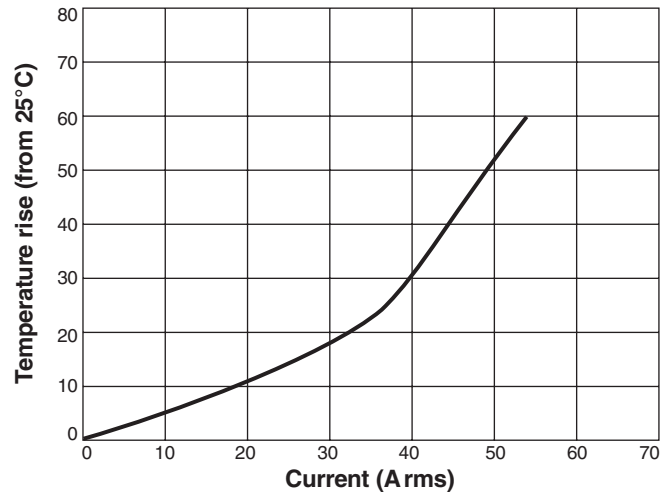
## L vs Frequency



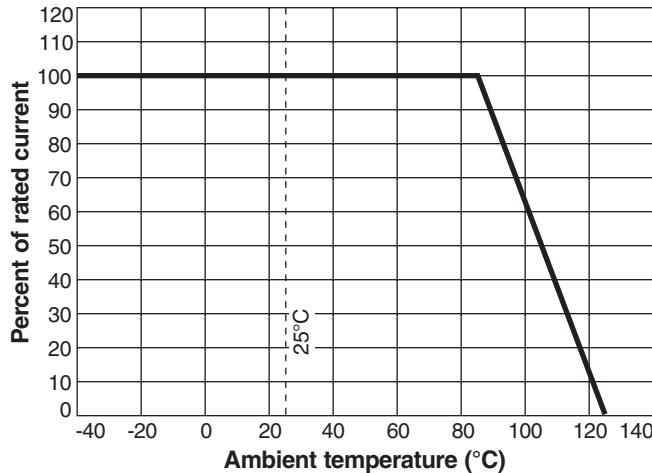
## ESR vs Frequency



## Typical Temperature Rise vs Current



## Irms Derating



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