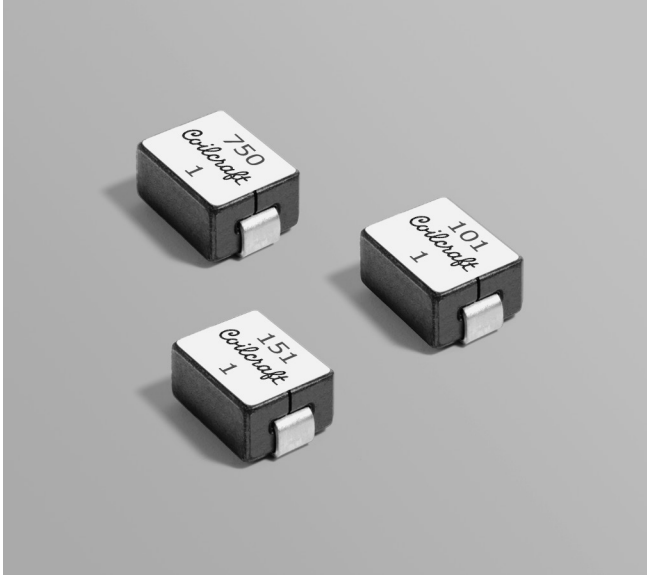




# Shielded Power Inductors – SLC1049



- 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 (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** 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** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>	L ±20% <sup>2</sup> (µH)	DCR ±7% <sup>3</sup> (mOhms)	SRF typ <sup>4</sup> (MHz)	Isat <sup>5</sup> (A)	Irms <sup>6</sup> (A)
SLC1049-750ML_	0.075	0.230	200	61.0	66.0
SLC1049-101ML_	0.100	0.230	145	50.0	66.0
SLC1049-121ML_	0.125	0.230	140	37.0	66.0
SLC1049-151ML_	0.150	0.230	133	30.0	66.0
SLC1049-231ML_	0.230	0.230	70	25.5	66.0

## 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.

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

SLC1049-151MLC

**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). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

B = 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 (1000 per full reel). Factory order only, not stocked.

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 dimensional diagram.

4. SRF measured with coils connected in series using an Agilent/HP 8753ES network analyzer or equivalent.

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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Document 498-1 Revised 03/03/20

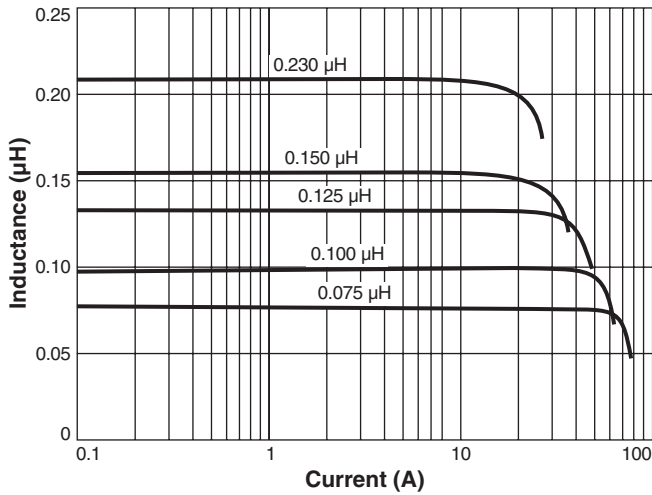
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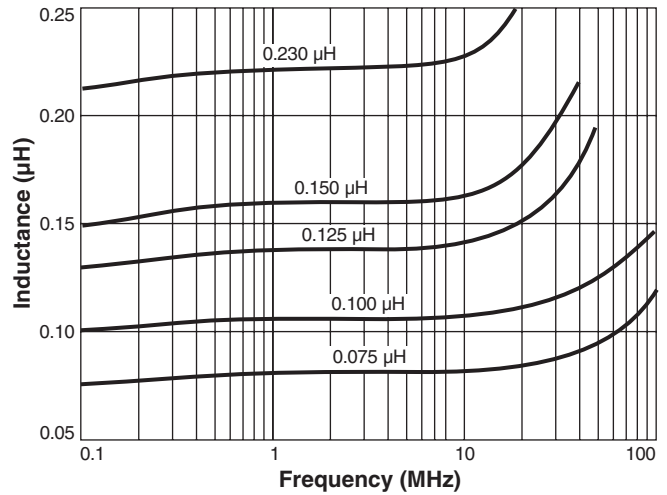


# Shielded Power Inductors - SLC1049 Series

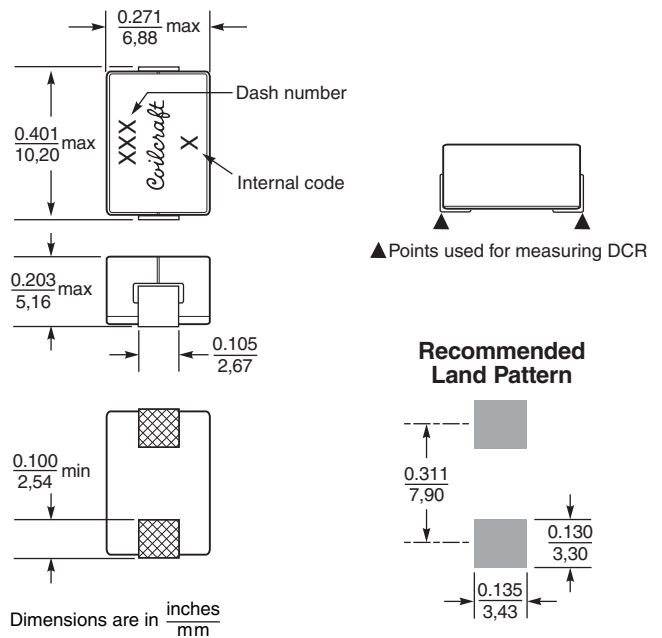
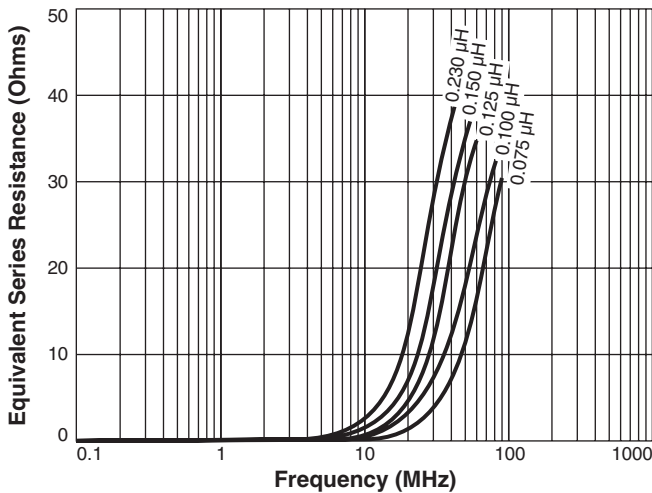
## L vs Current



## L vs Frequency



## ESR vs Frequency



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