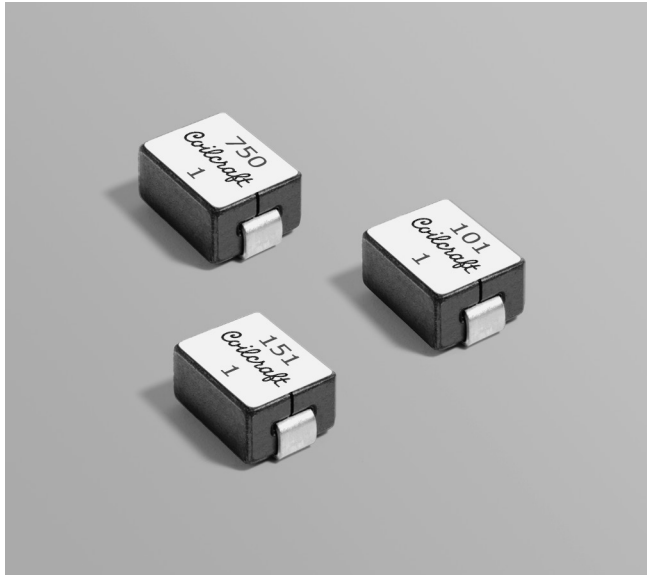


Shielded Power Inductors – SLC1049



- Designed for use in multi-phase VRM/VRD regulators and high current/high frequency DC/DC converters.
- Requires only 70 mm² of board space; can handle up to 61 A.

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 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)

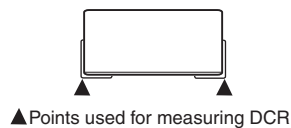
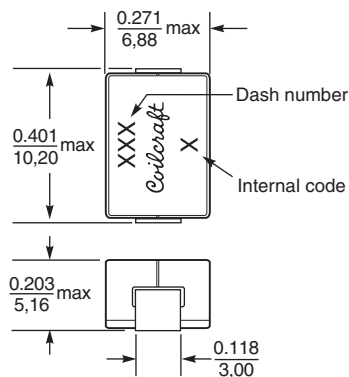
Failures in Time (FIT) / Mean Time Between Failures (MTBF)

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

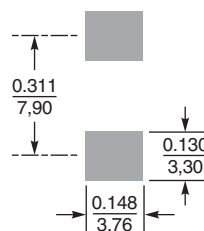
Packaging 250/7" reel; 1000/13" reel Plastic tape: 24 mm wide, 0.35 mm thick, 12 mm pocket spacing, 5.08 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

| Part number ¹ | L ±20% ² (μH) | DCR (mOhms) ³ | | SRF typ ⁴ (MHz) | Isat ⁵ (A) | Irms ⁶ (A) |
|--------------------------|--------------------------------|-----------------------------|-------|----------------------------------|--------------------------|--------------------------|
| | | typ | max | | | |
| SLC1049-750ML_ | 0.075 | 0.230 | 0.246 | 200 | 61.0 | 43.0 |
| SLC1049-101ML_ | 0.100 | 0.230 | 0.246 | 145 | 50.0 | 43.0 |
| SLC1049-121ML_ | 0.125 | 0.230 | 0.246 | 140 | 37.0 | 43.0 |
| SLC1049-151ML_ | 0.150 | 0.230 | 0.246 | 133 | 30.0 | 43.0 |
| SLC1049-231ML_ | 0.230 | 0.230 | 0.246 | 70 | 25.5 | 43.0 |



Recommended Land Pattern



Dimensions are in inches
mm

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).

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.

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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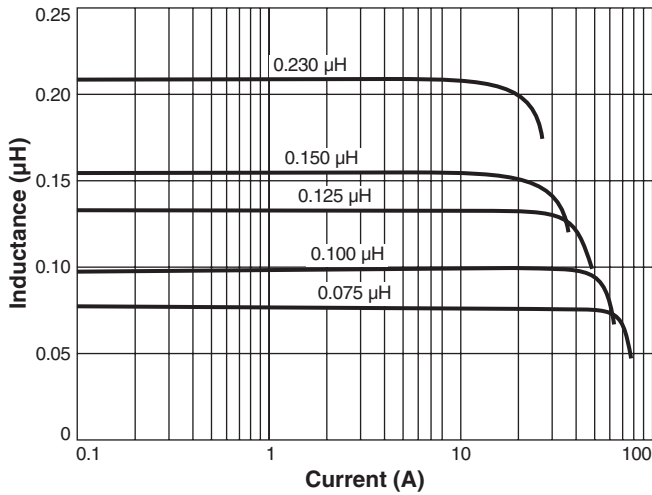
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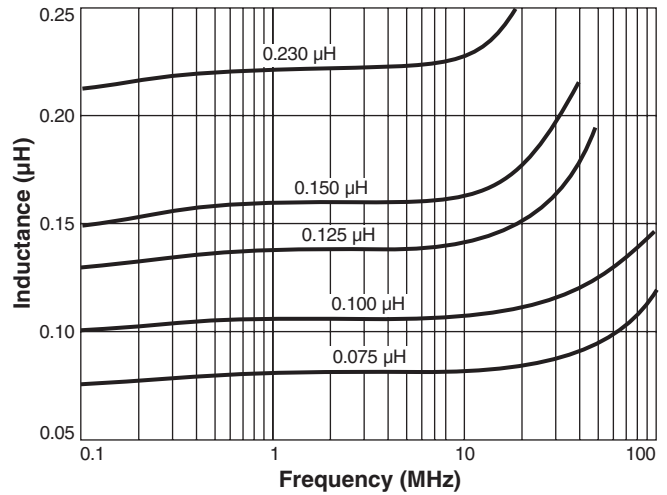


Shielded Power Inductors - SLC1049 Series

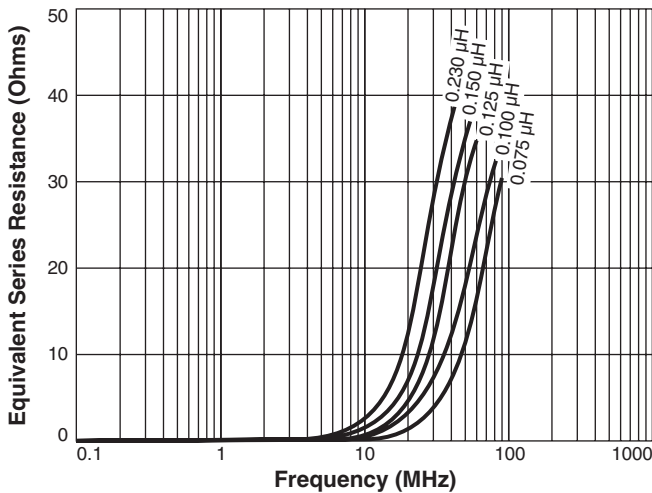
L vs Current



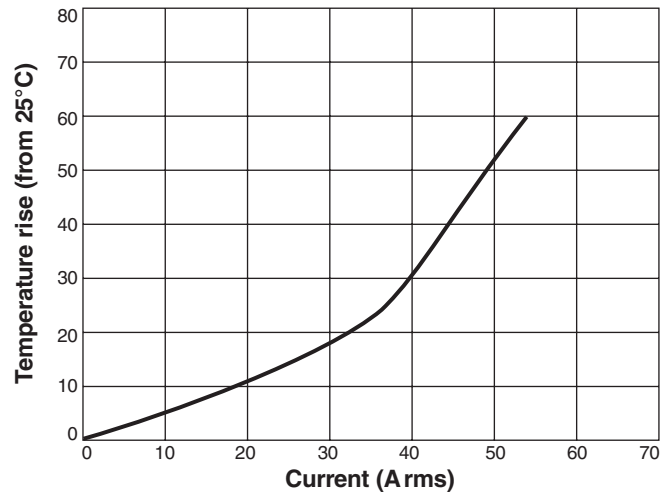
L vs Frequency



ESR vs Frequency



Typical Temperature Rise vs Current



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