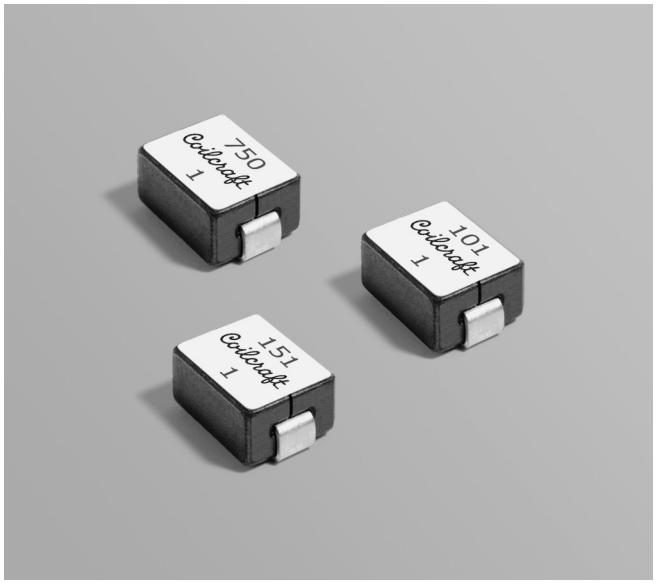
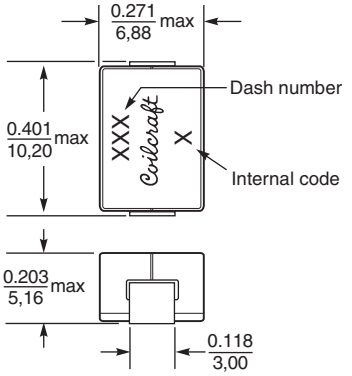
Shielded Power Inductors – SLC1049

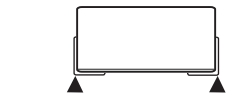


- Designed foruse in multi-phase VRM/VRD regulators and high current/high frequency DC/DC converters.
- Requires only 70 mm² of board space; can handle up to 61 A.

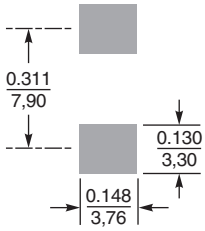
Core material Ferrite
Core and winding loss See www.coilcraft.com/coreloss
Terminations RoHS compliant matte tin over nickel over copper. Other terminations available at additional cost.
Weight 1.25 – 1.30 g
Ambient temperature –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature +125°C (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] typ	DCR (mOhms)[3] max	SRF typ[4] (MHz)	Isat[5] (A)	Irms[6] (A)
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




▲Points used for measuring DCR

Recommended Land Pattern



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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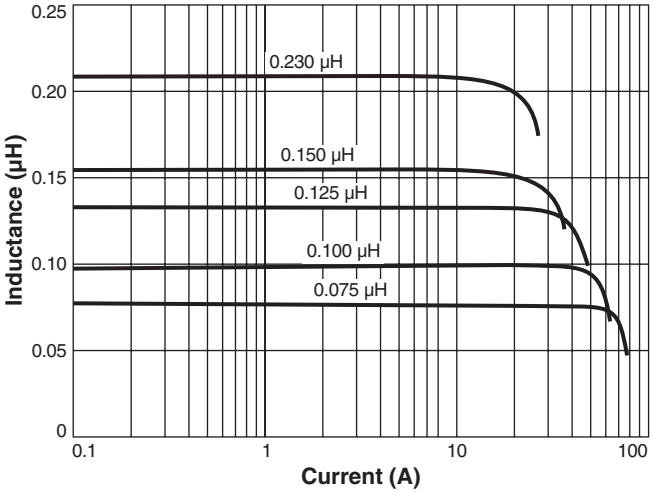
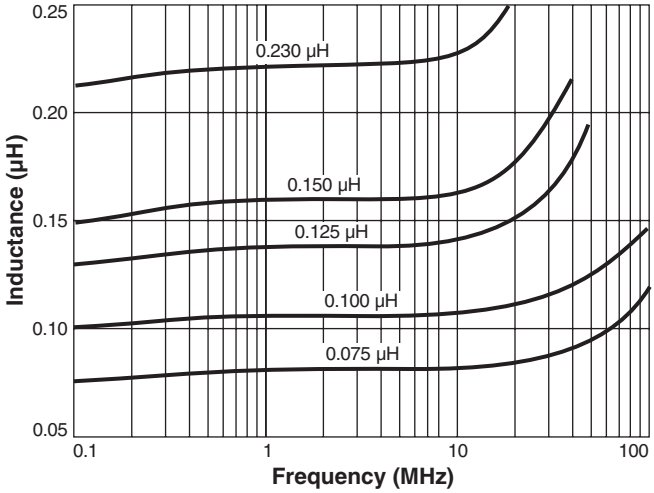
Shielded Power Inductors - SLC1049 Series

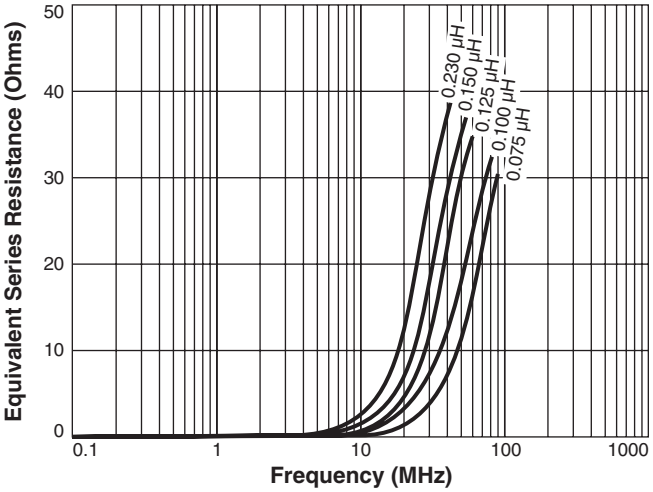
L vs Current



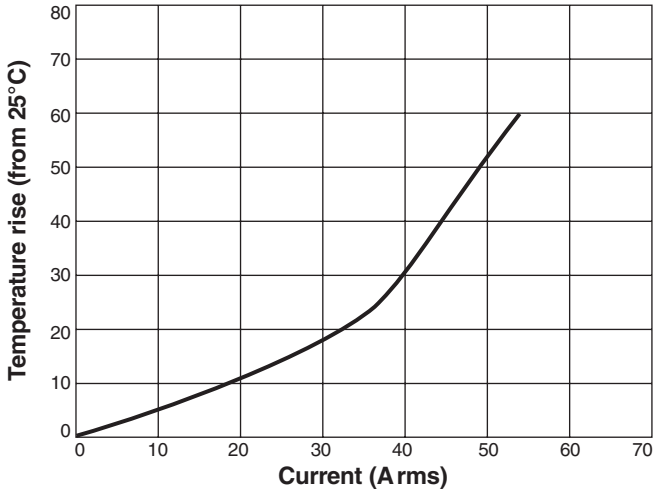
L vs Frequency



ESR vs Frequency



Typical Temperature Rise vs Current



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