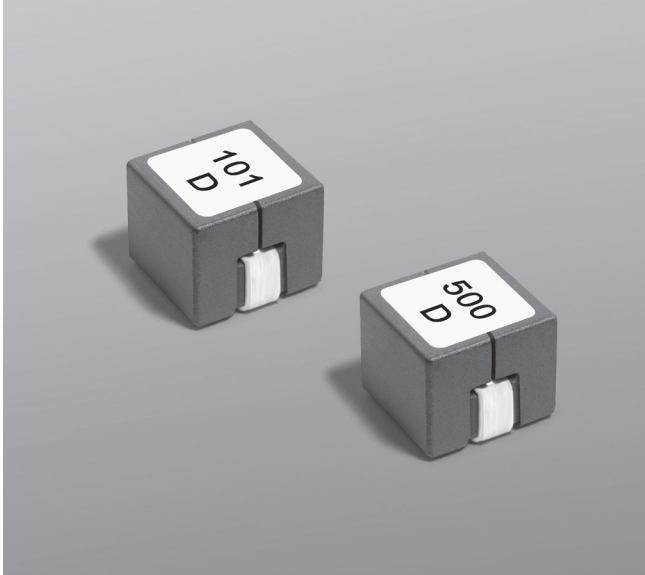


NEW!

Shielded Power Inductors – SLR4040



- Tight DCR tolerance for inductor-DCR-based current sensing circuits
- Excellent current handling, up to 78 A
- 4.0 × 4.0 × 4.0 mm surface mount package
- Designed for use in multi-phase VRM/VRD/EVRD regulators

Core material Ferrite

Weight 2.4 g

Environmental RoHS compliant, halogen free

Terminations RoHS compliant matte tin over nickel over copper.

Ambient temperature -40°C to +85°C with (40°C rise) Irms current.

Maximum part temperature +125°C (ambient + temp rise).

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; 2000/13" reel; Plastic tape: 12 mm wide, 0.35 mm thick, 8 mm pocket spacing, 4.0 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	Inductance ² ±15% (nH)	DCR ±10% ³ (mOhms)	SRF typ (MHz)	Isat (A) ⁴			Irms (A) ⁵	
				at 25°C	at 100°C	at 125°C	20°C rise	40°C rise
SLR4040-220LE_	22	0.32	200	78.0	61.0	57.0	24	40
SLR4040-500LE_	50	0.32	110	39.0	33.5	30.5	24	40
SLR4040-650LE_	65	0.32	100	31.0	29.3	26.8	24	40
SLR4040-800LE_	80	0.32	80	24.0	20.2	18.0	24	40
SLR4040-101LE_	100	0.32	70	18.5	17.0	15.6	24	40

1. When ordering, please specify **packaging** code:

SLR4040-101LEC

Packaging: **C** = 7" machine-ready reel. EIA-481 embossed plastic tape 500 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked 2000 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc.

3. DCR is measured on a micro-ohmmeter at points indicated in the diagram below.



4. DC current that causes an inductance drop of 20% (typ) from its value without current.

5. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

6. Electrical specifications at 25°C.

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

Irms Testing

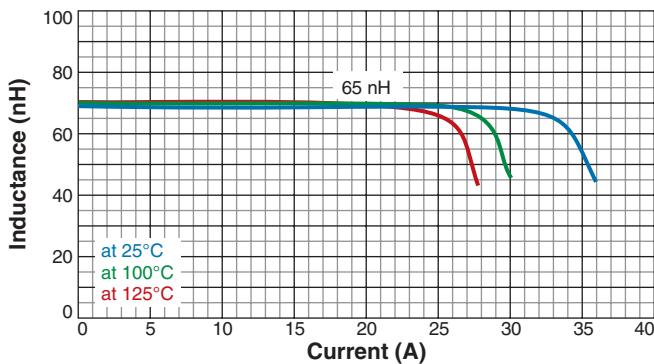
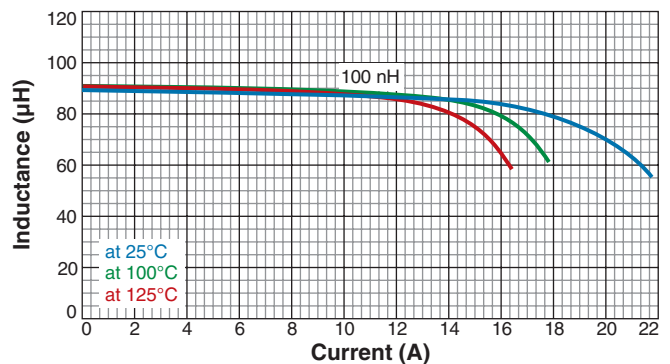
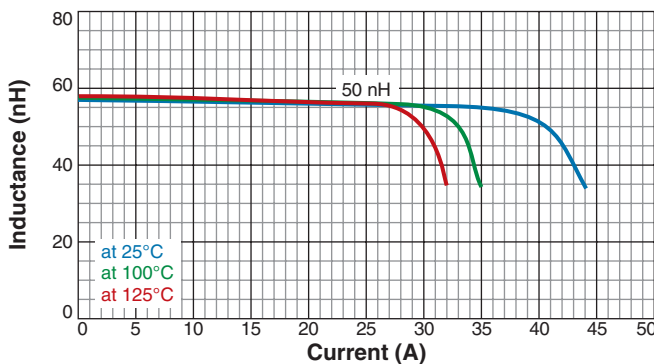
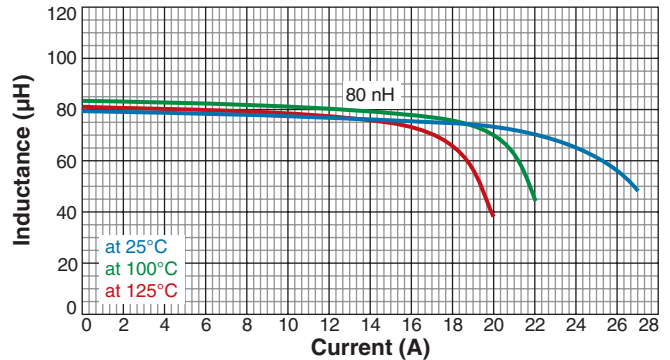
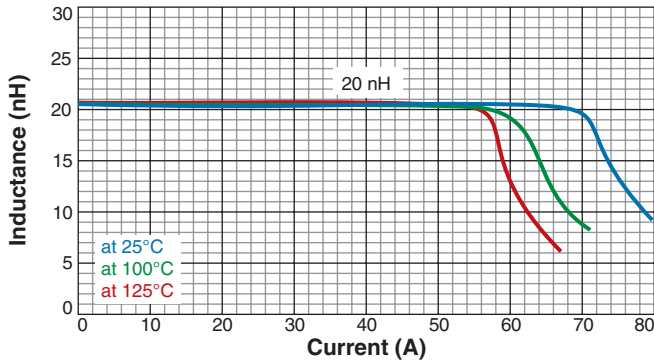
Irms testing was performed on 0.75 inch wide × 0.25 inch thick copper traces in still air.

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.



SLR4040 Shielded Power Inductors

L vs Current



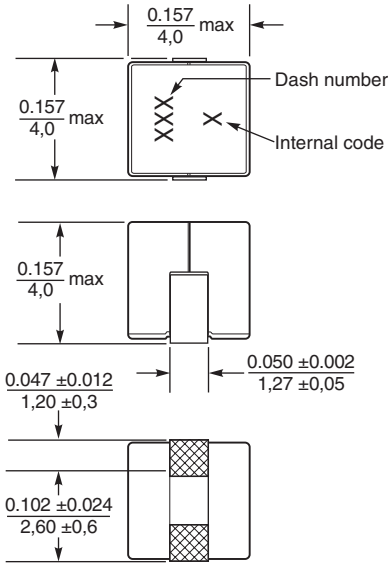
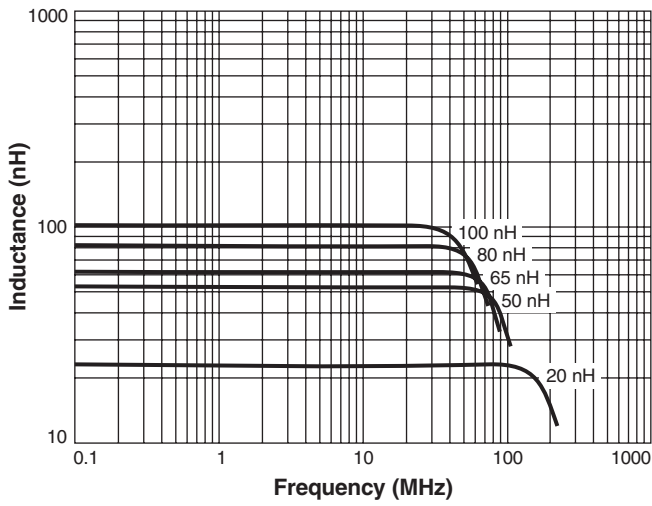
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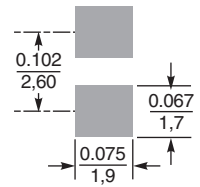


SLR4040 Shielded Power Inductors

L vs Frequency



Recommended Land Pattern



Dimensions are in $\frac{\text{inches}}{\text{mm}}$