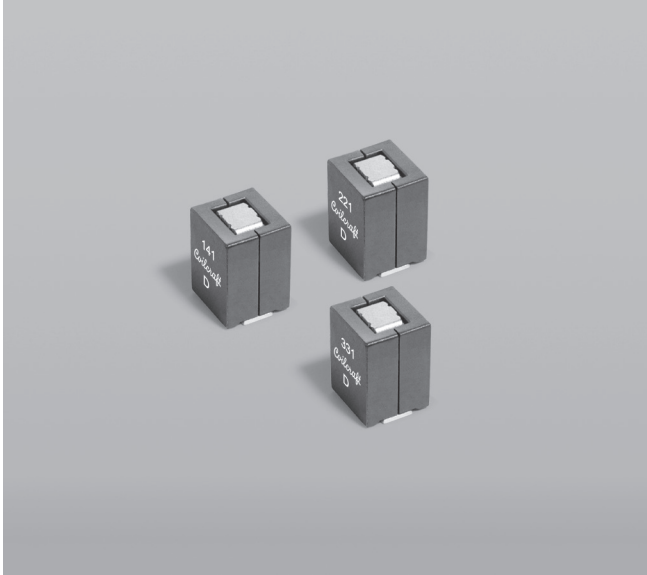


**NEW!**

# Shielded Power Inductors – SLR6810



- Tight DCR tolerance for inductor-DCR-based current sensing circuits
- Excellent current handling
- 7.6 × 6.8 × 10 (L x W x H) mm surface mount package
- Designed for use in multi-phase VRM/VRD/EVRD regulators
- AEC-Q200 qualified

**Core material** Ferrite

**Environmental** RoHS compliant, halogen free

**Terminations** RoHS compliant matte tin over nickel over copper.

**Weight** 2.1 – 2.2 g

**Ambient temperature** –40°C to +125°C with (40°C rise) Irms current.

**Maximum part temperature** +165°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

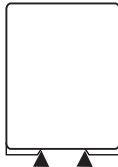
**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Packaging** 300/13" reel; Plastic tape: 24 mm wide, 0.4 mm thick, 20 mm pocket spacing, 10 mm pocket depth.

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

Part number	Inductance <sup>1</sup> (nH)	DCR ±10% <sup>2</sup> (mOhms)	SRF typ (MHz)	Isat (A) <sup>3</sup>			Irms (A) <sup>4</sup>	
				at 25°C	at 100°C	at 125°C	20°C rise	40°C rise
SLR6810-141KED	140±10%	0.28	160	75	58	53	34	47
SLR6810-221KED	220±10%	0.28	134	47	37	33	34	47
SLR6810-331KED	330±10%	0.28	54	31	25	22	34	47

1. Inductance at 100 kHz, 0.1 Vrms, 0 Adc.
2. DCR is measured on a micro-ohmmeter at points indicated in the diagram below.



3. DC current that causes an inductance drop of 20% (typ) from its value without current. [Click for temperature derating information](#).
  4. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. [Click for temperature derating information](#).
  5. Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**Irms Testing**

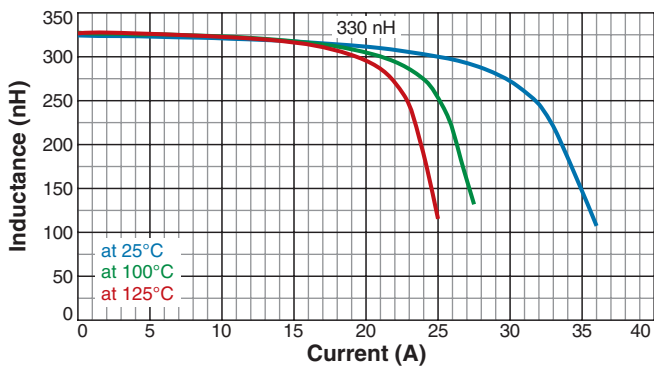
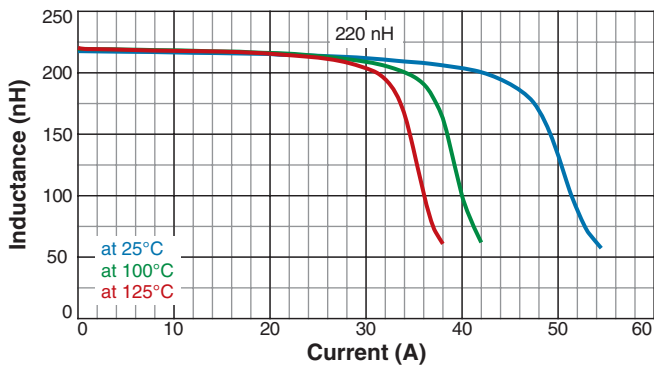
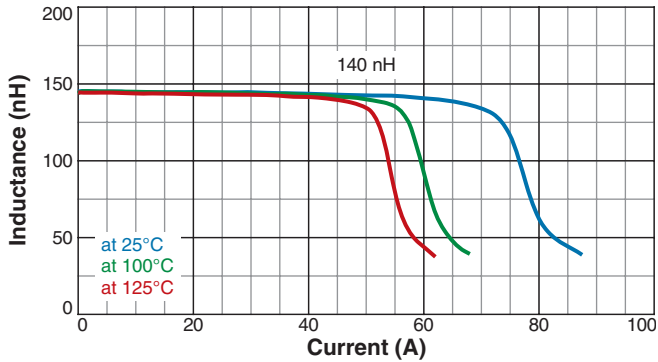
Irms testing was performed on 0.75 inch wide × 0.25 inch thick copper traces in still air.

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.

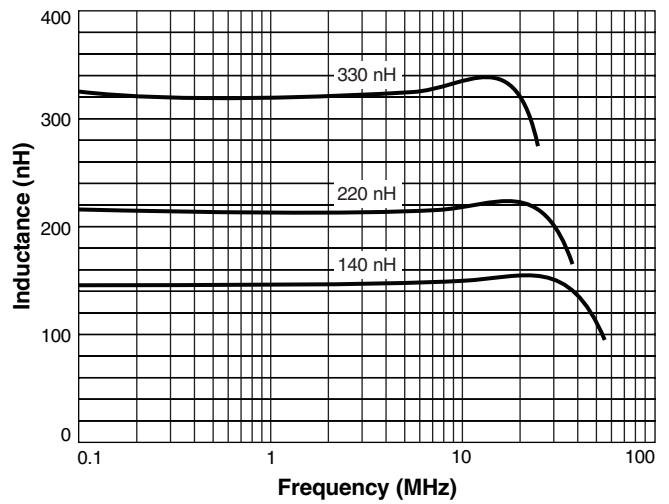


# SLR6810 Shielded Power Inductors

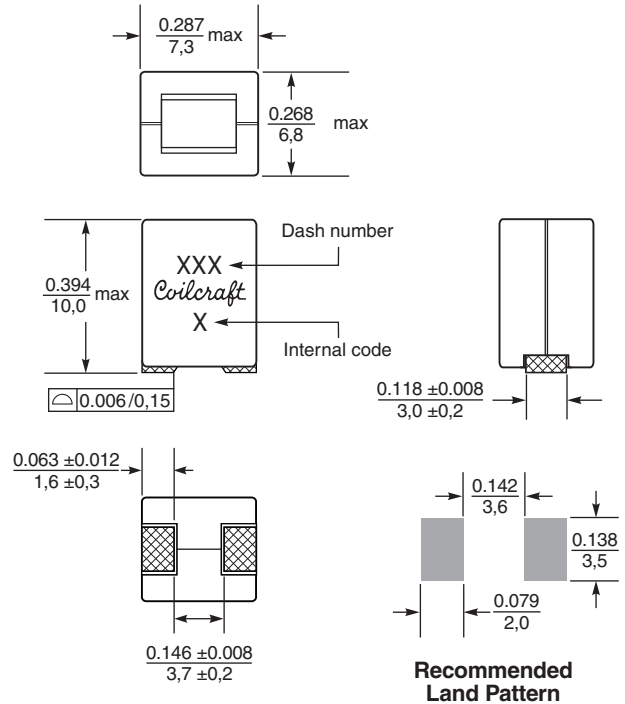
## L vs Current



## L vs Frequency



## Dimensions



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



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