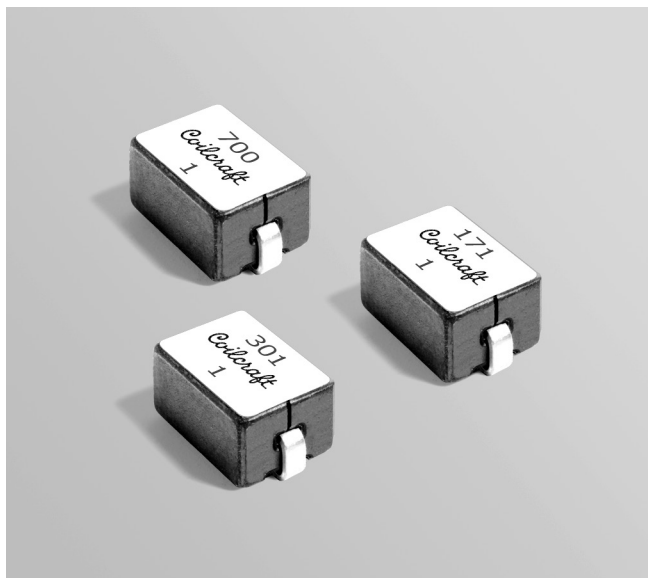


# Shielded Power Inductors – SLC1175



- Ideal for use in multi-phase VRM/VRD regulators and high current/high frequency DC/DC converters.
- Offers inductance values unavailable in other high current series.

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

**Environment** RoHS compliant, halogen free

**Terminations** RoHS compliant matte tin over nickel over copper. Other terminations available at additional cost.

**Weight** 2.19 – 2.30 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** 150/7" reel, 700/13" reel; Plastic tape: 24 mm wide, 0.4 mm thick, 12 mm pocket spacing, 7.62 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>	Inductance <sup>2</sup> ±20% (nH)	DCR (mOhms) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
		min	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
SLC1175-700ME_	70	0.228	0.252	179	83	100	>100	25.5	35.5
SLC1175-121ME_	120	0.228	0.252	144	80	84	88	25.5	35.5
SLC1175-151ME_	150	0.228	0.252	95	64	70	76	25.5	35.5
SLC1175-171ME_	170	0.228	0.252	73	54	60	63	25.5	35.5
SLC1175-201ME_	200	0.228	0.252	64	48	53	55	25.5	35.5
SLC1175-231ME_	230	0.228	0.252	61	41	46	49	25.5	35.5
SLC1175-271ME_	270	0.228	0.252	52	32	37	40	25.5	35.5
SLC1175-301ME_	300	0.228	0.252	48	27	31	34	25.5	35.5

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

**SLC1175-301MEC**

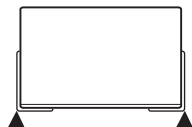
**Packaging:** **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (150 per full reel).

**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. Factory order only, not stocked (700 per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4284.

3. DCR is measured between the two points indicated below.



▲ Points used for measuring DCR

4. SRF measured using an Agilent/HP 8753ES network analyzer or equivalent.

5. DC current at 25°C that causes the specified inductance drop from its value without current. [Click for temperature derating information](#).

6. 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](#).

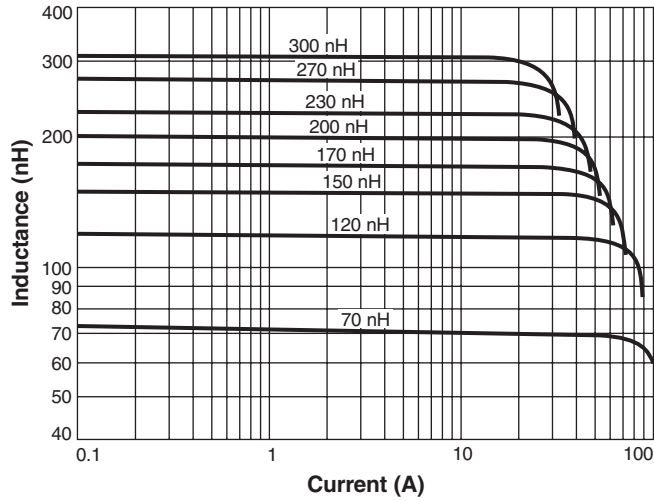
7. Electrical specifications at 25°C.

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

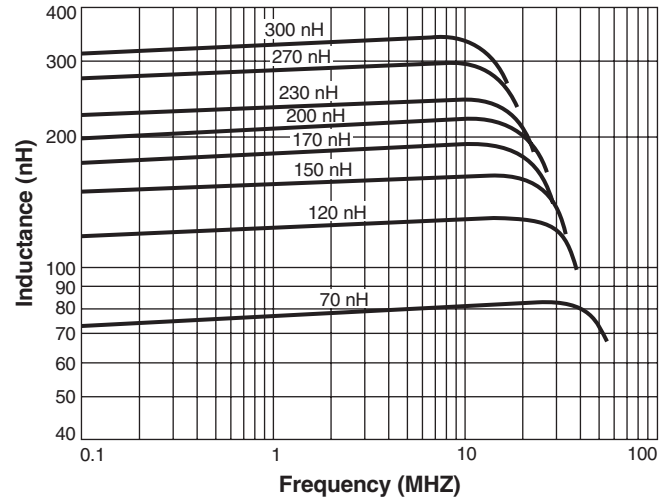


# Shielded Power Inductors – SLC1175 Series

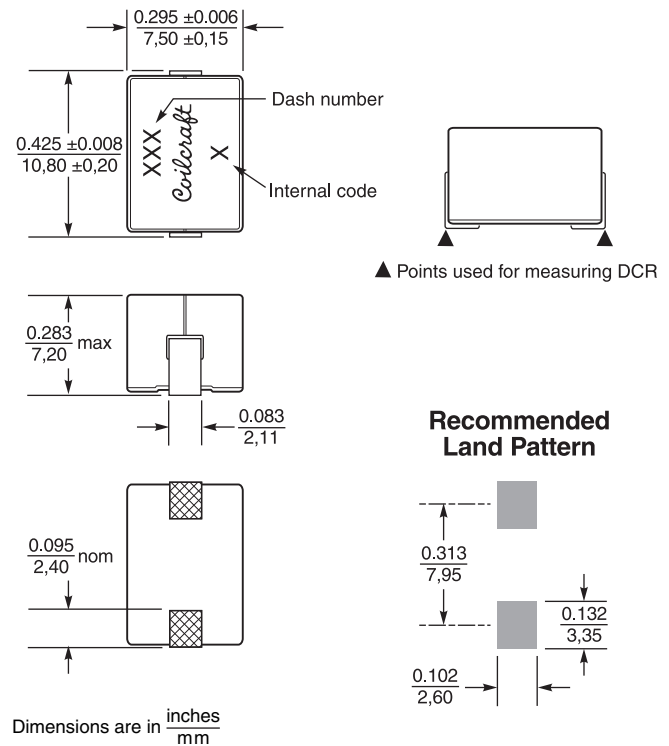
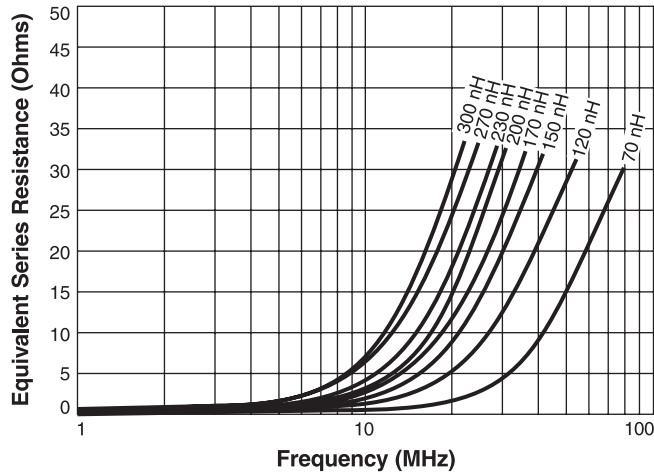
## L vs Current



## L vs Frequency



## ESR vs Frequency



**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

Document 838-2 Revised 09/15/15  
 © Coilcraft Inc. 2015  
 This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.