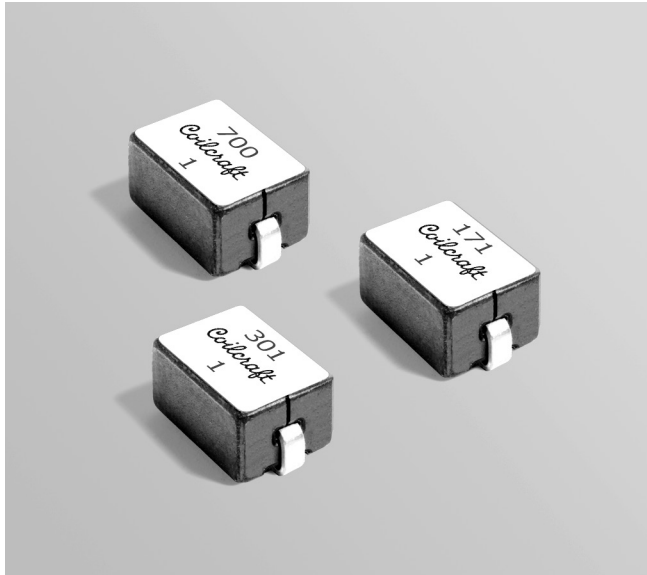


Shielded Power Inductors – SLC1175



- 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.

Designer's Kit C467 contains 3 each of select values.

Core material Ferrite

Core and winding loss See 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)

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 ¹ | Inductance ² ±20% (nH) | DCR ³ ±5% (mOhms) | SRF typ ⁴ (MHz) | Isat (A) ⁵ | | | Irms (A) ⁶ | |
|--------------------------|--------------------------------------|---------------------------------|-------------------------------|-----------------------|----------|----------|-----------------------|-----------|
| | | | | 10% drop | 20% drop | 30% drop | 20°C rise | 40°C rise |
| SLC1175-700ME_ | 70 | 0.24 | 179 | 83 | 100 | >100 | 58 | 76 |
| SLC1175-121ME_ | 120 | 0.24 | 144 | 80 | 84 | 88 | 58 | 76 |
| SLC1175-151ME_ | 150 | 0.24 | 95 | 64 | 70 | 76 | 58 | 76 |
| SLC1175-171ME_ | 170 | 0.24 | 73 | 54 | 60 | 63 | 58 | 76 |
| SLC1175-201ME_ | 200 | 0.24 | 64 | 48 | 53 | 55 | 58 | 76 |
| SLC1175-231ME_ | 230 | 0.24 | 61 | 41 | 46 | 49 | 58 | 76 |
| SLC1175-271ME_ | 270 | 0.24 | 52 | 32 | 37 | 40 | 58 | 76 |
| SLC1175-301ME_ | 300 | 0.24 | 48 | 27 | 31 | 34 | 58 | 76 |

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

SLC1175-301MEC

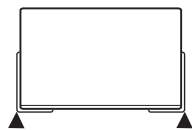
Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape (150 per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

B = In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

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.

Irms Testing

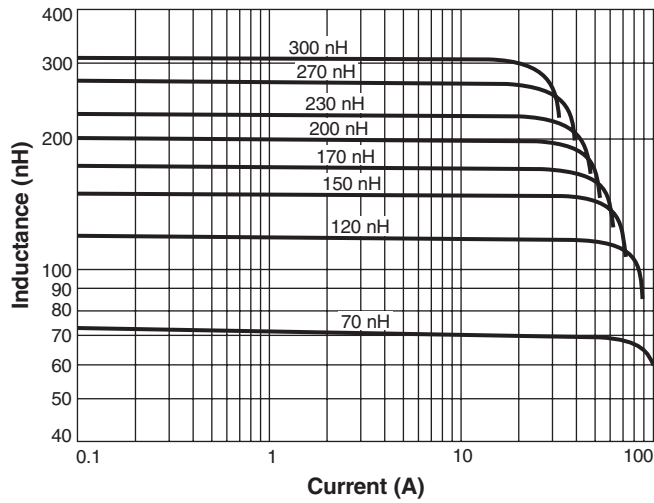
Irms testing was performed on 0.75 inch wide × 0.25 inch thick copper traces in still air.

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.

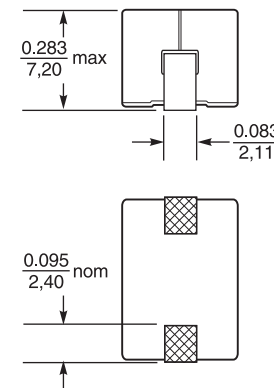
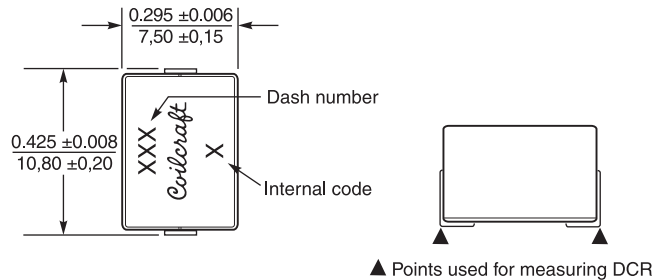
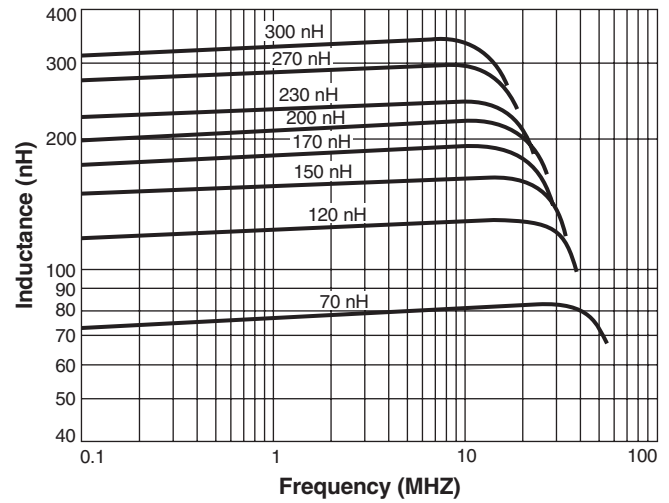


Shielded Power Inductors – SLC1175 Series

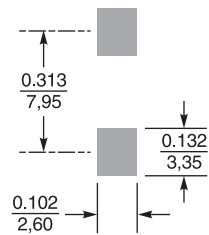
L vs Current



L vs Frequency



Recommended Land Pattern



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



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