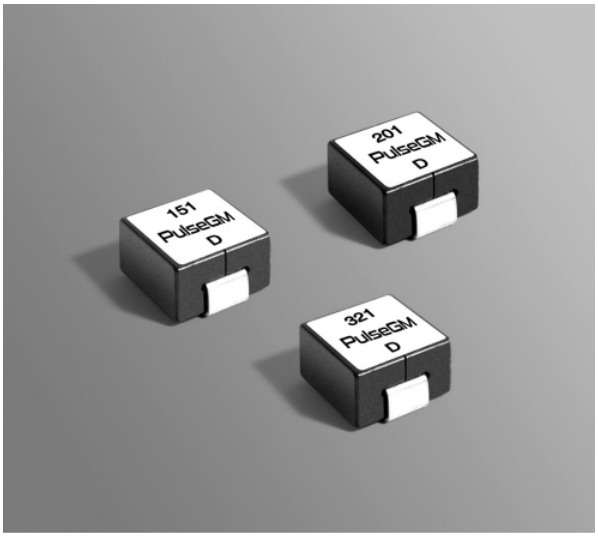
Shielded Power Inductors – HC1480



- Requires a mere quarter square inch of board space
- Handles current as high as 130 A.
- Ideal for use in multi-phase VRM/VRD regulators

Designer's Kit C467 contains 3 each of select values.
Core material Ferrite
Terminations RoHS compliant matte tin over nickel over copper. Other terminations available at additional cost.
Weight 5.25 g
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 500/13″ reel; Plastic tape: 24 mm wide, 0.4 mm thick, 16 mm pocket spacing, 8.1 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash.

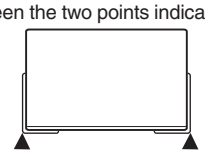
Part number[1]	Inductance[2] ±20% (nH)	DCR (mOhms)[3] min	DCR (mOhms)[3] max	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	Isat (A)[5] 20% drop	Isat (A)[5] 30% drop	Irms (A)[6] 20°C rise	Irms (A)[6] 40°C rise
HC1480-111ML_	110	0.15	0.21	130	110	128	130	64	83
HC1480-131ML_	130	0.15	0.21	110	97	110	112	64	83
HC1480-151ML_	150	0.15	0.21	108	88	95	97	64	83
HC1480-171ML_	170	0.15	0.21	75	80	87	90	64	83
HC1480-201ML_	200	0.15	0.21	68	65	72	76	64	83
HC1480-231ML_	230	0.15	0.21	59	57	64	67	64	83
HC1480-261ML_	260	0.15	0.21	50	50	57	61	64	83
HC1480-301ML_	300	0.15	0.21	46	42	49	52	64	83
HC1480-321ML_	320	0.15	0.21	42	38	44	48	64	83
HC1480-441ML_	440	0.15	0.21	35	28	32	35	64	83

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

HC1480-321MLD

Packaging: D = 13″ machine-ready reel. EIA-481 embossed plastic tape (500 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.

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.
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.
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.

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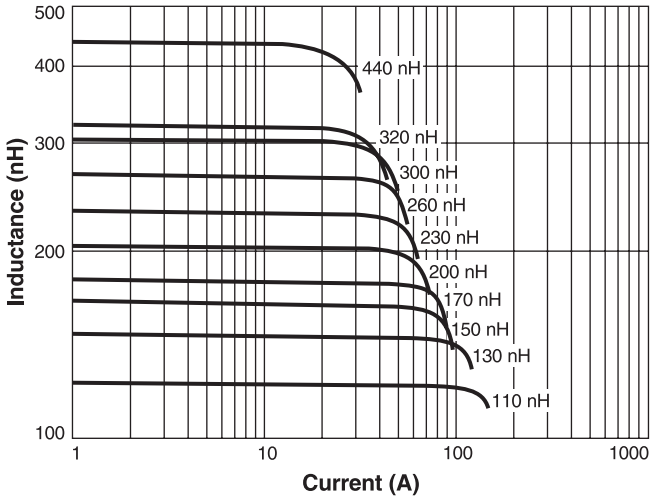
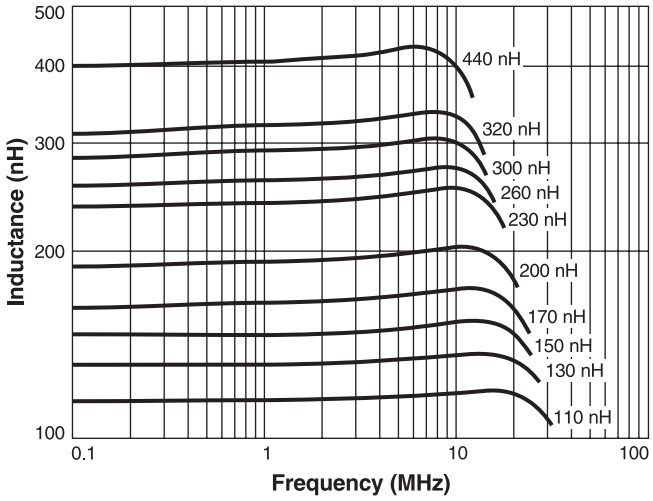
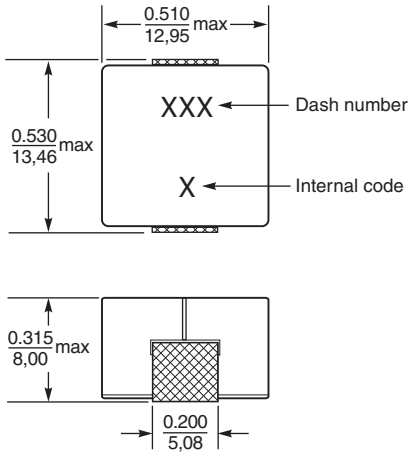
Shielded Power Inductors – HC1480 Series

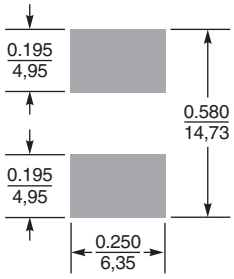
L vs Current



L vs Frequency







Recommended Land Pattern

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

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