SMT Power Inductors – MO1813H Series



- High-current power inductance; up to 14 A saturating current
- Rugged self-leaded construction for reliable soldering

Designer's Kit C331 contains 3 of each part
Core material Ferrite
Core and winding loss See www.coilcraft.com/coreloss
Terminations RoHS compliant tin-silver over copper. Other terminations available at additional cost.
Weight 278– 315 mg
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 1000 per 13″ reel Plastic tape: 16 mm wide, 0.3 mm thick, 12 mm pocket spacing, 5.4 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash.

Part number[1]	L ref (µH)	L typ ±20%[2] (µH)	DCR max (Ohms)	SRF typ (MHz)	Isat[3] (A)	Irms[4] (A)
MO1813H-181ML_	0.18	0.18	0.003	800	14.0	10.0
MO1813H-331ML_	0.33	0.33	0.004	600	10.0	7.0
MO1813H-561ML_	0.56	0.56	0.010	200	7.7	6.0
MO1813H-122ML_	1.2	1.15	0.017	140	5.3	4.4
MO1813H-222ML_	2.2	2.06	0.035	100	3.5	3.1
MO1813H-332ML_	3.3	3.20	0.040	80	3.0	2.7
MO1813H-472ML_	4.7	4.70	0.054	50	2.6	2.2
MO1813H-682ML_	6.8	6.80	0.080	45	2.2	1.8
MO1813H-822ML_	8.2	8.20	0.092	42	2.0	1.6
MO1813H-103ML_	10.0	9.55	0.11	40	1.9	1.5
MO1813H-153ML_	15.0	15.3	0.17	30	1.5	1.2
MO1813H-223ML_	22.0	22.6	0.25	25	1.2	1.0
MO1813H-333ML_	33.0	32.5	0.35	20	0.99	0.82
MO1813H-473ML_	47.0	48.1	0.47	15	0.87	0.72

1. When ordering, please specify **termination** and **packaging** codes:

MO1813H-473MLD

Termination: **L** = RoHS compliant tin-silver over copper. Special order: **T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).

Packaging: **D** = 13″ machine-ready reel. EIA-481 embossed plastic tape, 1000 parts 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 D instead.

2. Inductance tested at 0.25 Vrms, 100 kHz, 0 Adc.
3. DC current at which the inductance drops 30% (typ) from its value without current.
4. Current that causes a 40°C temperature rise from 25°C ambient.
5. Electrical specifications at 25°C.

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

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Specification subject to change without notice.
Please check web site for latestinformation.

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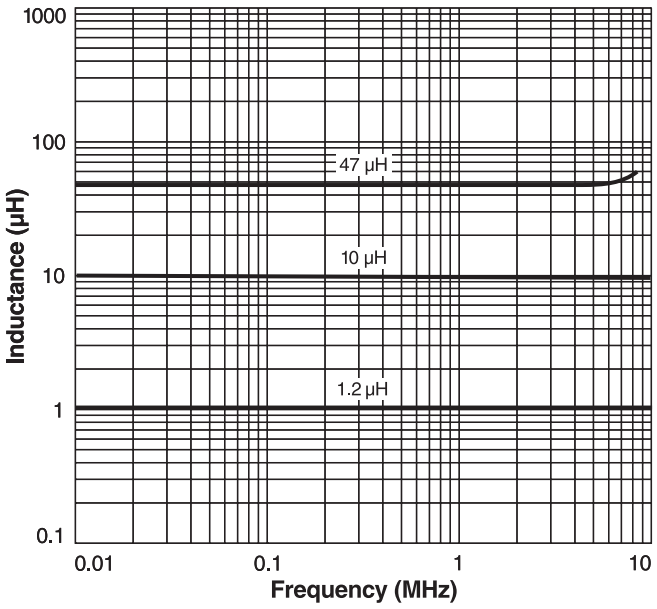
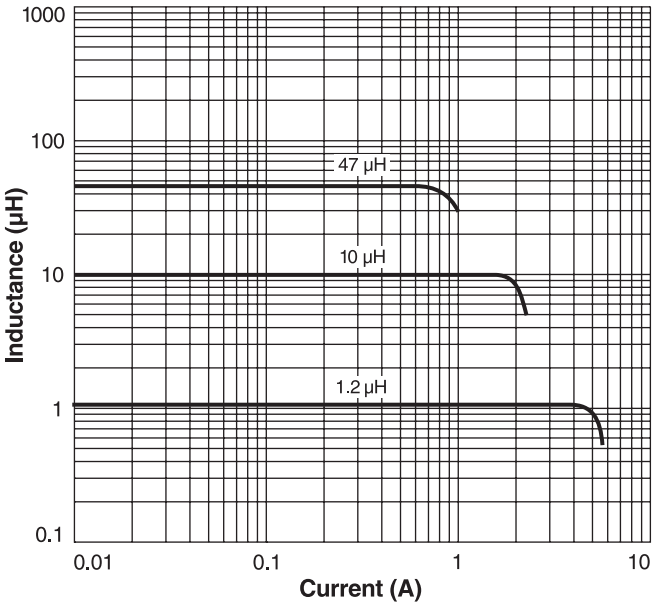
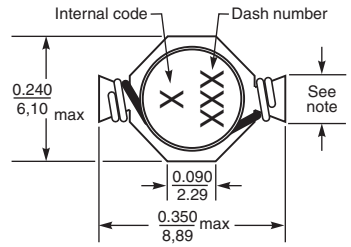
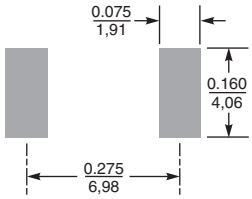
Typical L vs Frequency



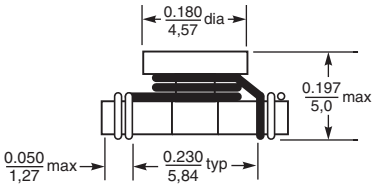
Typical L vs Current







Recommended Land Pattern



Note:
0.080 ±0.010 / 2,03 ±0,25 body
0.100 / 2,54 leads, based on -561

Dimensions are in inches / mm

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Specification subject to change without notice.
Please check web site for latest information.