



SMT Power Inductors – DO1813H Series



- High-current power inductance; up to 14 A saturating current
- Rugged self-led 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). [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 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. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	L ref (μH)	L typ ±20% ² (μH)	DCR max (Ohms)	SRF typ (MHz)	Isat ³ (A)	Irms ⁴ (A)
DO1813H-181ML_	0.18	0.18	0.003	800	14.0	10.0
DO1813H-331ML_	0.33	0.33	0.004	600	10.0	7.0
DO1813H-561ML_	0.56	0.56	0.010	200	7.7	6.0
DO1813H-122ML_	1.2	1.15	0.017	140	5.3	4.4
DO1813H-222ML_	2.2	2.06	0.035	100	3.5	3.1
DO1813H-332ML_	3.3	3.20	0.040	80	3.0	2.7
DO1813H-472ML_	4.7	4.70	0.054	50	2.6	2.2
DO1813H-682ML_	6.8	6.80	0.080	45	2.2	1.8
DO1813H-822ML_	8.2	8.20	0.092	42	2.0	1.6
DO1813H-103ML_	10.0	9.55	0.11	40	1.9	1.5
DO1813H-153ML_	15.0	15.3	0.17	30	1.5	1.2
DO1813H-223ML_	22.0	22.6	0.25	25	1.2	1.0
DO1813H-333ML_	33.0	32.5	0.35	20	0.99	0.82
DO1813H-473ML_	47.0	48.1	0.47	15	0.87	0.72

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

DO1813H-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. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

B = Less than full reel. 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 D.

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

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

SPICE models ON OUR WEB SITE



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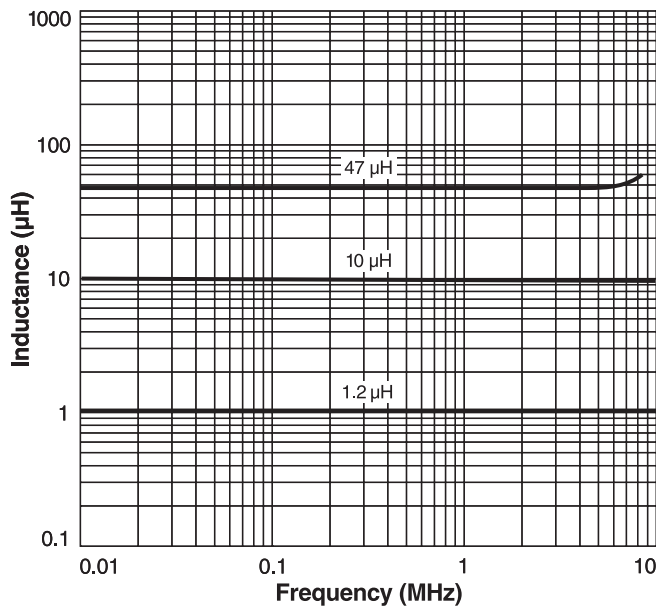
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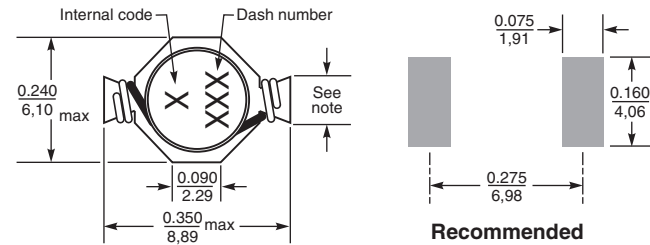
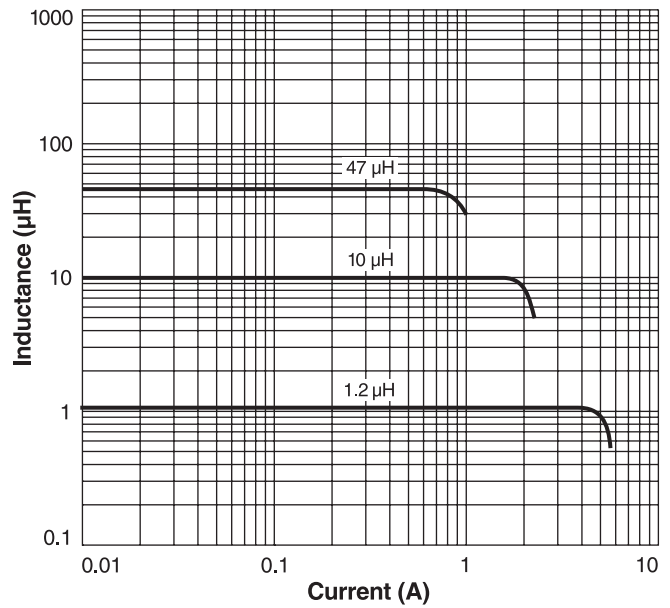


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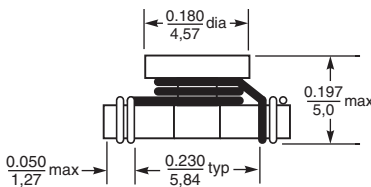
Typical L vs Frequency



Typical L vs Current



Recommended Land Pattern



Note:
 0.080 \pm 0.010 body
 2.03 \pm 0.25
 0.100
 2.54 leads, based on -561

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



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Mouser Electronics

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