SMT Power Inductors - DO5010H Series

- Irms ratings up to 15 A; saturation currents up to 30 A
- Heavy gauge wire for low DC resistance

Designer's Kit C355 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 3.2 – 4.0 g

Ambient temperature –40°C to +85°C with Irms current, +85°C to +125°C with derated current

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 250 per 13″ reel Plastic tape: 32 mm wide, 0.38 mm thick, 24 mm pocket spacing, 7.8 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part Number[1]	Inductance[2] ±20% (µH)	DCR max (mOhm)	SRF typ[3] (MHz)	Isat[4] (A)	Irms[5] (A)
DO5010H-781ML_	0.78	2.6	156	30	15
DO5010H-152ML_	1.5	4.0	100	25	15
DO5010H-222ML_	2.2	6.1	75	20	12
DO5010H-332ML_	3.3	8.6	60	17	10
DO5010H-392ML_	3.9	10	55	15	9.0
DO5010H-472ML_	4.7	14	40	13	8.4
DO5010H-602ML_	6.0	17	35	12	7.5
DO5010H-782ML_	7.8	18	35	11	7.5
DO5010H-103ML_	10	26	28	10	6.0
DO5010H-123ML_	12	28	26	8.5	5.2
DO5010H-153ML_	15	32	20	8.0	4.4
DO5010H-223ML_	22	47	20	7.0	3.5
DO5010H-333ML_	33	66	15	5.5	3.0
DO5010H-473ML_	47	86	9	4.5	2.6
DO5010H-683ML_	68	130	8	3.5	2.3
DO5010H-104ML_	100	190	7	3.0	1.8
DO5010H-154ML_	150	250	6	2.6	1.5
DO5010H-224ML_	220	380	5	2.4	1.2
DO5010H-334ML_	330	560	4	1.9	1.0
DO5010H-474ML_	470	850	3	1.4	0.82
DO5010H-684ML_	680	1100	2.5	1.2	0.72
DO5010H-105ML_	1000	1800	2.0	1.0	0.56

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

DO5010H-105MLD

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.
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 100 kHz, 0.1 Vrms using an Agilent/HP 4284A LCR meter or equivalent.
3. SRF measured using Agilent/HP 8753D network analyzer.
4. DC current at which the inductance drops 10% (typ) from its value without current.
5. Current that causes a 40°C temperature rise from 25°C ambient.
6. Electrical specifications at 25°C.

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

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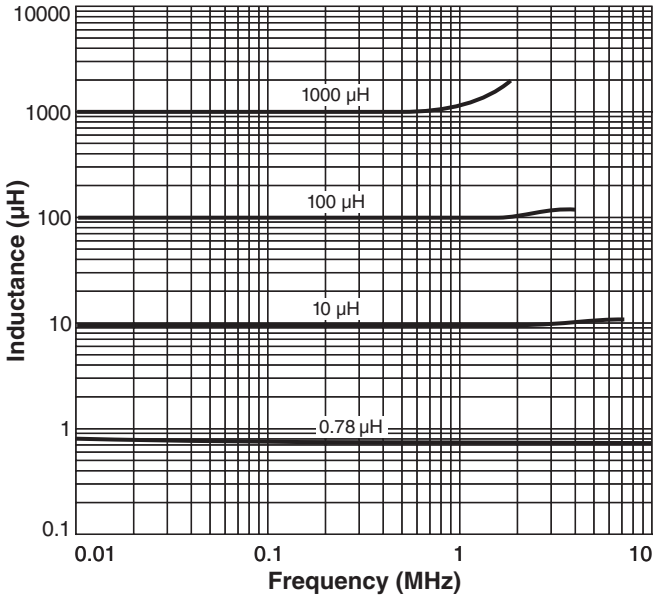
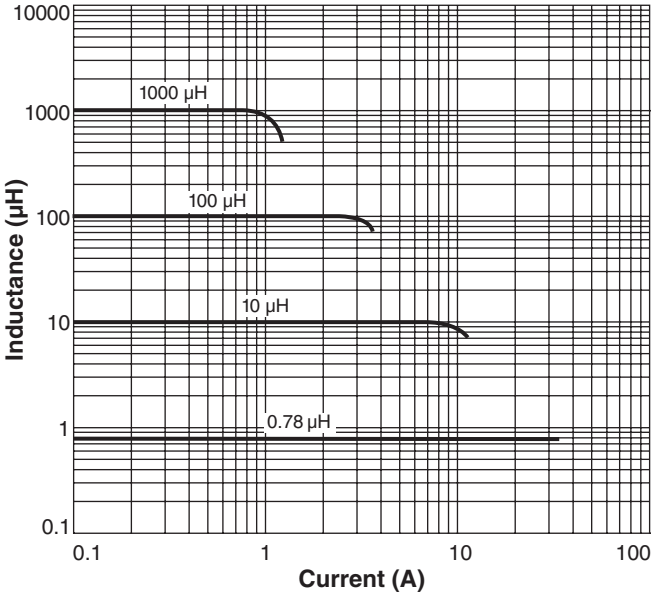
SMT Power Inductors - DO5010H Series

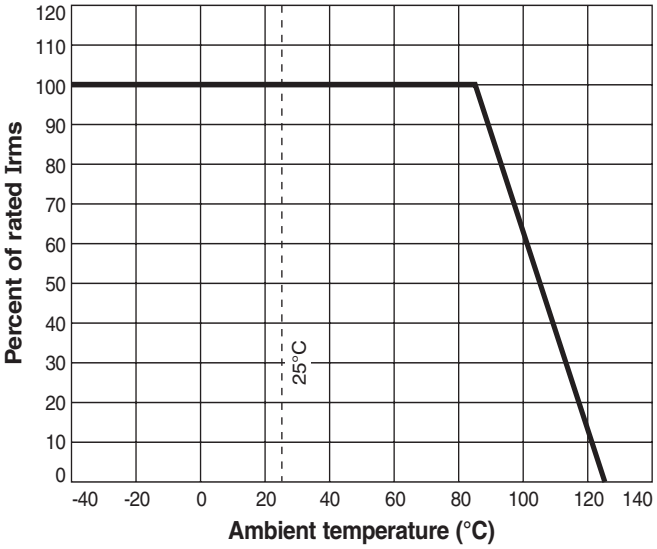
Typical L vs Frequency

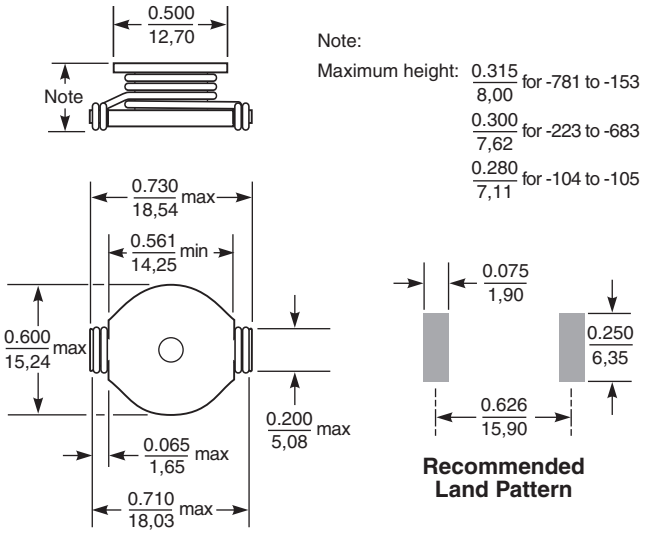


Typical L vs Current



Irms Derating

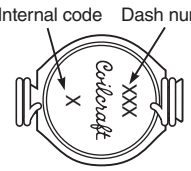




Note:
Maximum height: 0.315 / 8,00 for -781 to -153
0.300 / 7,62 for -223 to -683
0.280 / 7,11 for -104 to -105

Recommended Land Pattern

Part Marking



Part marking since Feb. 2005. Parts manufactured prior to that date may have color dots. Visit www.coilcraft.com/colrpowr.cfm for color dot marking details.

Dimensions are in inches / mm

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