



# 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](http://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 <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR max (mOhm)	SRF typ <sup>3</sup> (MHz)	Isat <sup>4</sup> (A)	Irms <sup>5</sup> (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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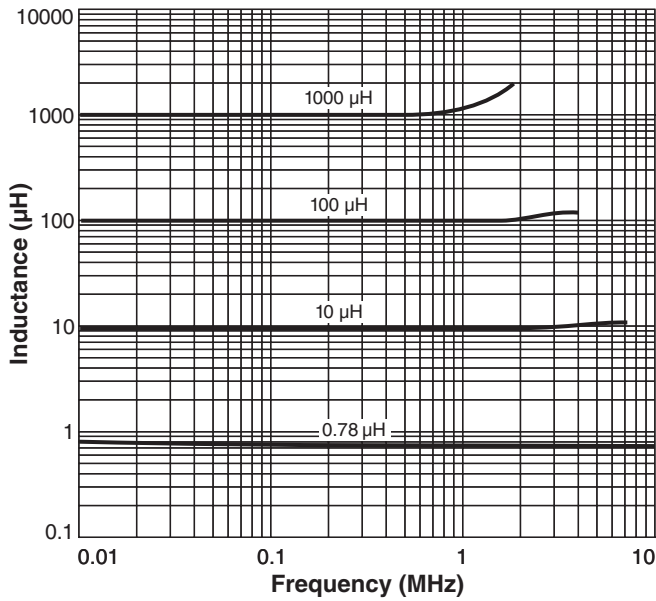
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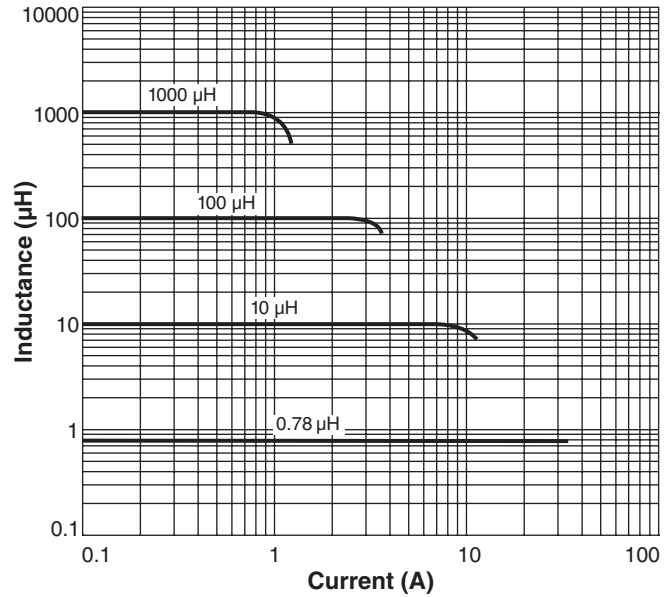


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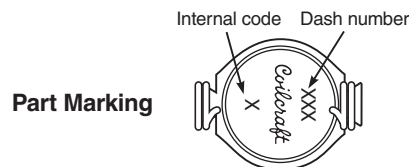
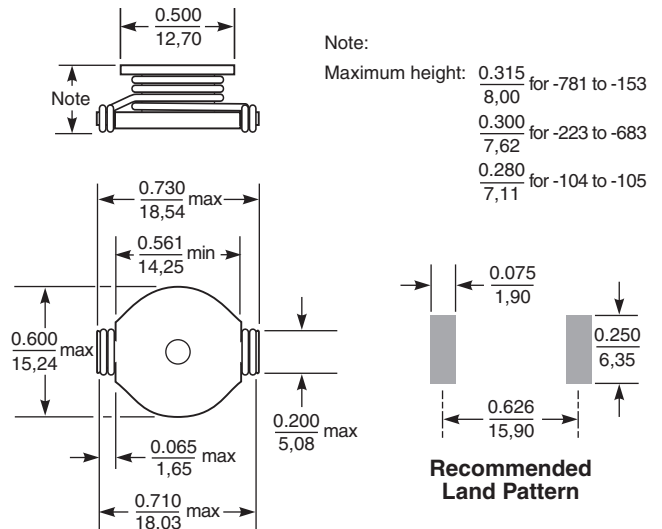
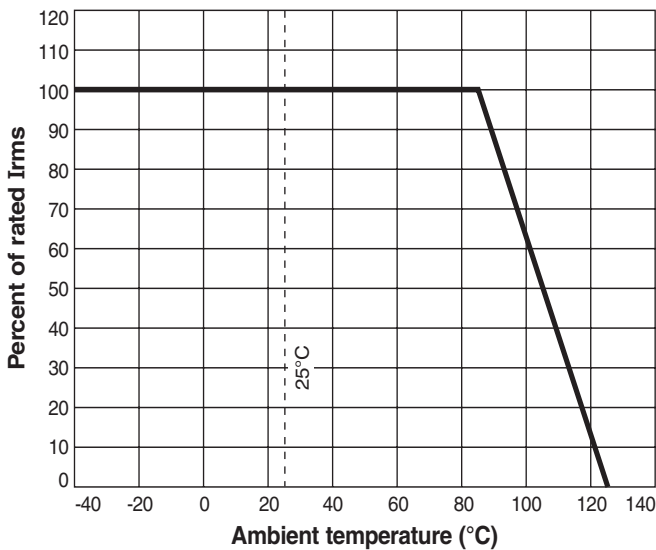
## Typical L vs Frequency



## Typical L vs Current



## Irms Derating



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

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



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