SMT Power Inductors–DO1608C Series

- High energy storage and very low resistance
- Defense Supply Center CID A-A-59742

Designer's Kit C377 contains 3 of each part

Core material Ferrite

Core and winding loss See www.coilcraft.com/coreloss

Terminations RoHS compliant gold over nickel over moly-manganese. Other terminations available at additional cost.

Weight 28 – 164 mg

Ambient temperature –40°C to +85°C with Irms current, +85°C to +100°C with derated current

Storage temperature Component: –40°C to +100°C. Packaging: –55°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)

Mean Time Between Failures (MTBF) 26,315,789 hours

Packaging 750/7″reel; 2500/13″ reel Plastic tape: 12 mm wide, 0.28 mm thick, 4 mm pocket spacing, 3 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part number[1]	L ±20%[2] (µH)	DCR max (Ohms)	SRF typ (MHz)	Isat[3] (A)	Irms[4] (A)
DO1608C-102ML_	1.0	0.05	130	2.9	2.9
DO1608C-152ML_	1.5	0.06	115	2.6	2.8
DO1608C-222ML_	2.2	0.07	100	2.3	2.4
DO1608C-272ML_	2.7	0.08	75	2.1	2.1
DO1608C-332ML_	3.3	0.08	70	2.0	2.0
DO1608C-472ML_	4.7	0.09	50	1.5	1.5
DO1608C-682ML_	6.8	0.13	45	1.2	1.4
DO1608C-822ML_	8.2	0.16	40	1.15	1.3
DO1608C-103ML_	10	0.16	35	1.10	1.2
DO1608C-153ML_	15	0.23	30	0.90	1.1
DO1608C-223ML_	22	0.37	20	0.70	0.8
DO1608C-333ML_	33	0.51	15	0.58	0.6
DO1608C-473ML_	47	0.64	14	0.50	0.5
DO1608C-683ML_	68	0.86	11	0.40	0.4
DO1608C-104ML_	100	1.27	9	0.31	0.3
DO1608C-154ML_	150	2.00	6	0.27	0.25
DO1608C-224ML_	220	3.11	5.5	0.22	0.20
DO1608C-334ML_	330	3.80	5	0.18	0.16
DO1608C-474ML_	470	5.06	4	0.16	0.15
DO1608C-684ML_	680	9.20	3	0.14	0.12
DO1608C-105ML_	1000	13.8	2	0.10	0.07

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

   DO1608C-105M L C

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

   Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (750 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 C instead.

   D = 13″ machine-ready reel. EIA-481 embossed plastic tape (2500 parts per full reel).
2. Tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
3. DC current at which the inductance drops 10% (typ) from its value without current.
4. Current that causes a 15°C temperature rise from 25°C ambient.
5. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

SPICE models ON OUR WEB SITE OR CD

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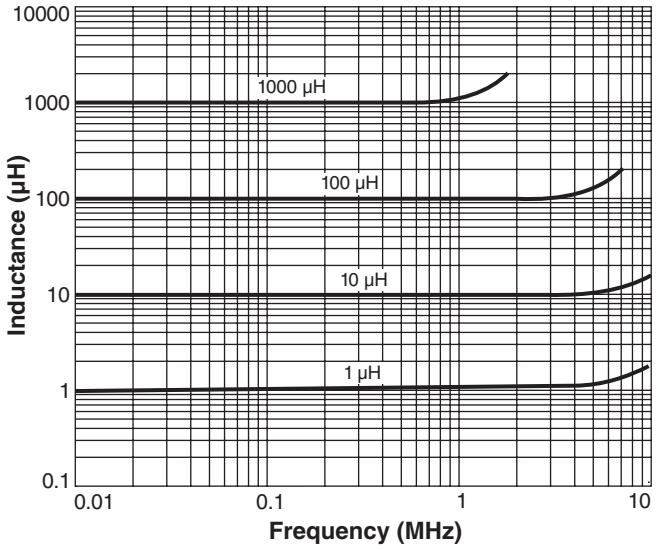
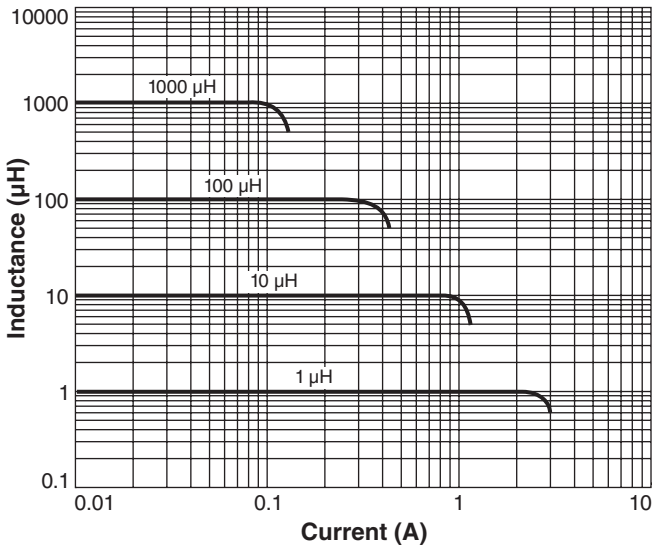
SMT Power Inductors – DO1608 Series

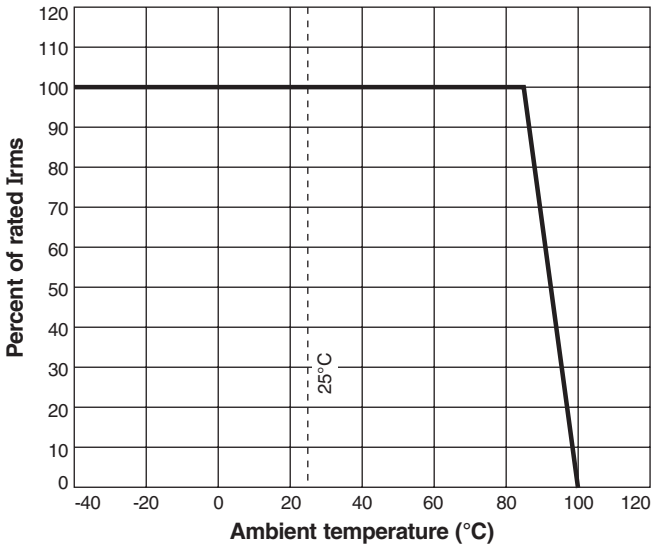
Typical L vs Frequency

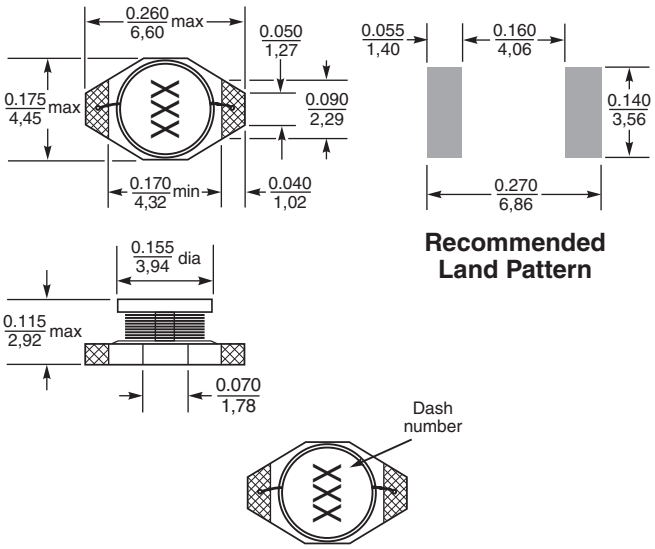


Typical L vs Current



Irms Derating





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

Dimensions are in inches / mm

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