SMT Power Inductors – DO1608C

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

Designer's Kit C377 contains 3 of each stocked 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 128– 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: –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 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[2] (µH)	% tol[3]	DCR max (Ohms)	SRF typ (MHz)	Isat[4] (A)	Irms (A)[5] 20°C rise	Irms (A)[5] 40°C rise
DO1608C-102ML_	1.0	**20**	0.05	130	2.9	1.90	2.70
DO1608C-152ML_	1.5	**20**	0.06	115	2.6	1.90	2.65
DO1608C-222ML_	2.2	**20**	0.07	100	2.3	1.85	2.55
DO1608C-272ML_	2.7	**20**	0.08	75	2.1	1.80	2.45
DO1608C-332ML_	3.3	**20**	0.08	70	2.0	1.60	2.20
DO1608C-472ML_	4.7	**20**	0.09	50	1.5	1.40	1.90
DO1608C-682ML_	6.8	**20**	0.13	45	1.2	1.20	1.60
DO1608C-822ML_	8.2	**20**	0.16	40	1.15	1.10	1.55
DO1608C-103ML_	10	**20**	0.16	35	1.10	1.10	1.50
DO1608C-153ML_	15	**20**	0.23	30	0.90	0.90	1.25
DO1608C-223_L_	22	**20**,10	0.37	20	0.70	0.75	0.95
DO1608C-333_L_	33	**20**,10	0.51	15	0.58	0.60	0.80
DO1608C-473_L_	47	**20**,10	0.64	14	0.50	0.52	0.70
DO1608C-683_L_	68	**20**,10	0.86	11	0.40	0.44	0.60
DO1608C-104_L_	100	**20**,10	1.27	9.0	0.31	0.37	0.50
DO1608C-154_L_	150	**20**,10	2.00	6.0	0.27	0.28	0.39
DO1608C-224_L_	220	**20**,10	3.11	5.5	0.22	0.23	0.31
DO1608C-334_L_	330	**20**,10	3.80	5.0	0.18	0.22	0.30
DO1608C-474_L_	470	**20**,10	5.06	4.0	0.16	0.20	0.26
DO1608C-684_L_	680	**20**,10	9.20	3.0	0.14	0.14	0.19
DO1608C-105_L_	1000	**20**,10	13.8	2.0	0.10	0.11	0.15

1. Please specify **tolerance**, **termination** and **packaging** codes:

DO1608C-105MLC

Tolerance: **K** = 10%, M = 20% (Table shows stock tolerances in bold.)

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. Tolerances in bold are stocked for immediate shipment
4. DC current at which the inductance drops 10% (typ) from its value without current.
5. Current that causes the specified temperature rise from 25°C ambient.
6. 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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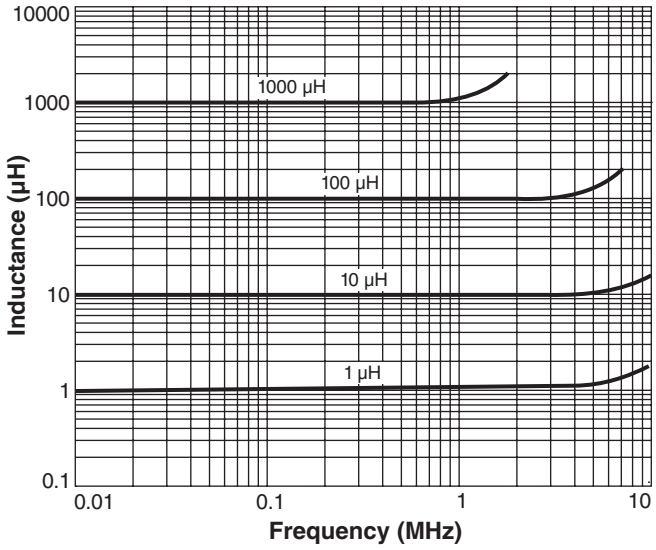
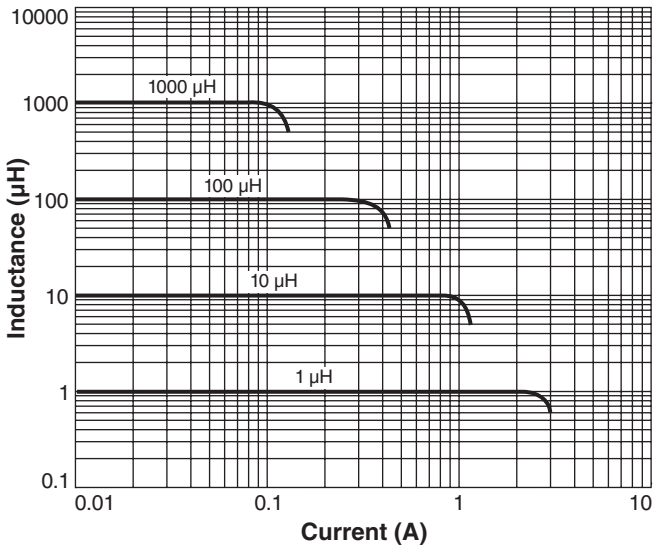
SMT Power Inductors – DO1608C Series

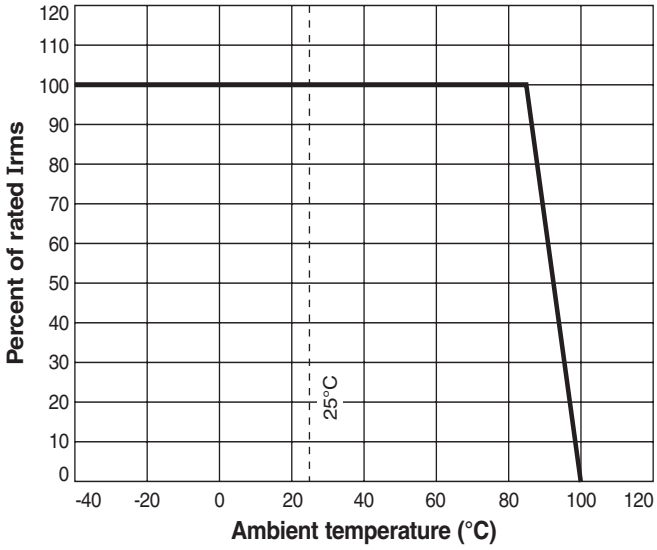
Typical L vs Frequency

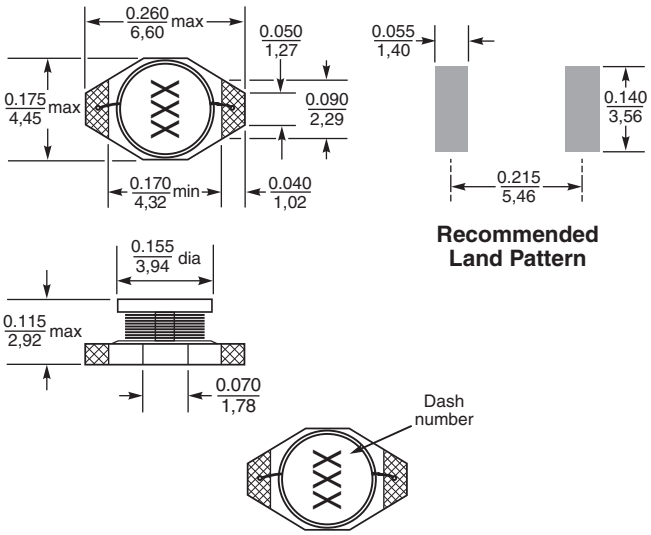


Typical L vs Current



Irms Derating





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

Dimensions are in inches / mm

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