

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 electroplated gold (<50 μm) over nickel over moly-manganese. Other terminations available at additional cost.

Weight 128– 164 mg

Ambient temperature –40°C to +85°

Maximum part temperature +125°C (ambient + temp rise)

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 750/7" reel; 2500/13" reel Plastic tape: 12 mm wide, 0.28 mm thick, 8 mm pocket spacing, 3 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 ² (μH)	% tol ³	DCR max (Ohms)	SRF typ (MHz)	Isat ⁴ (A)	Irms (A) ⁵	
						20°C rise	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). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

D = 13" machine-ready reel. EIA-481 embossed plastic tape (2500 parts per full reel).

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 C.

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 25°C that causes 10% (typ) inductance drop from its value without current.
[Click for temperature derating information.](#)
5. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
[Click for temperature derating information.](#)
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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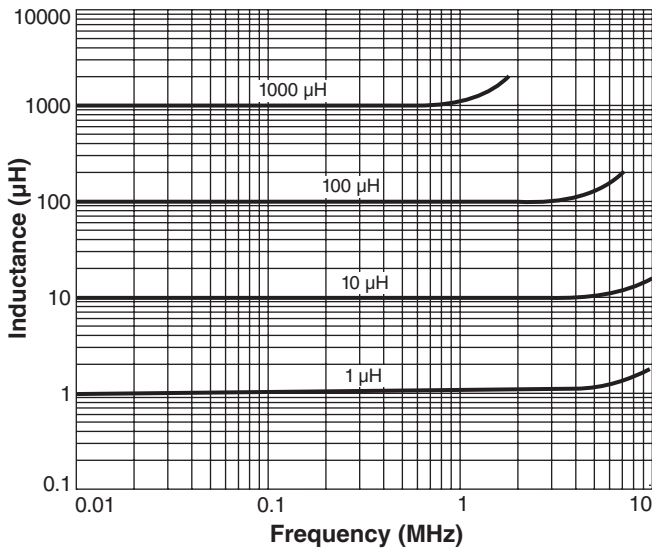
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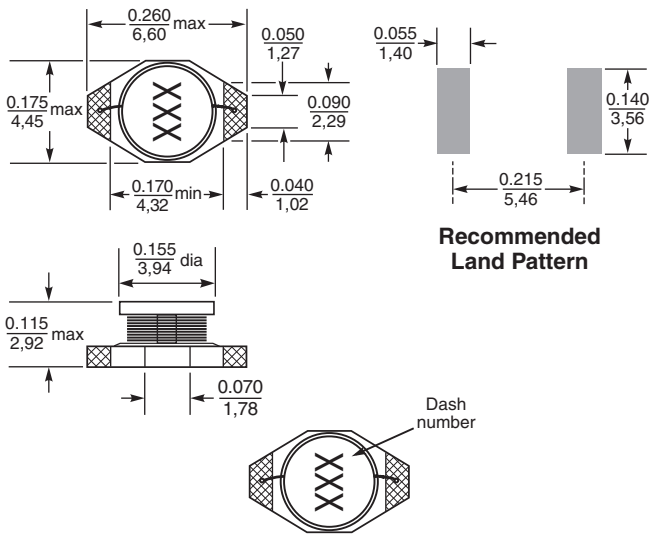
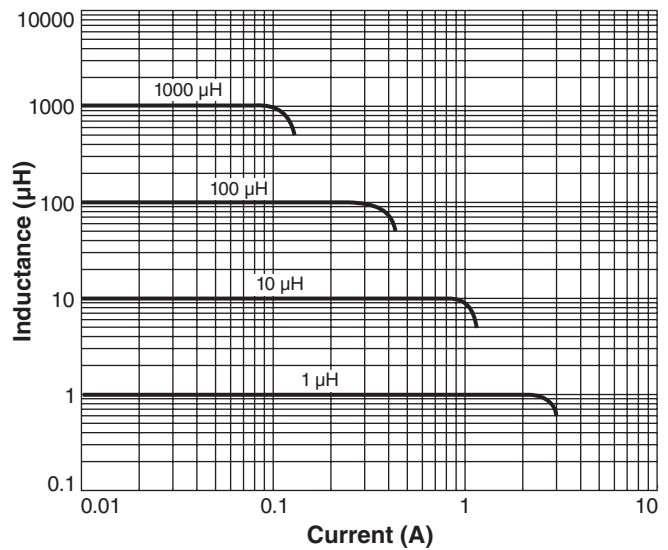


SMT Power Inductors – DO1608C Series

Typical L vs Frequency



Typical L vs Current



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



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