

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, 4 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).

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 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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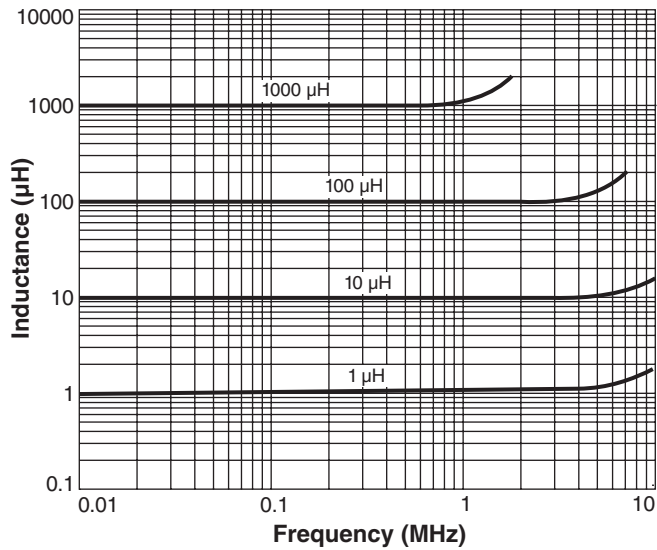
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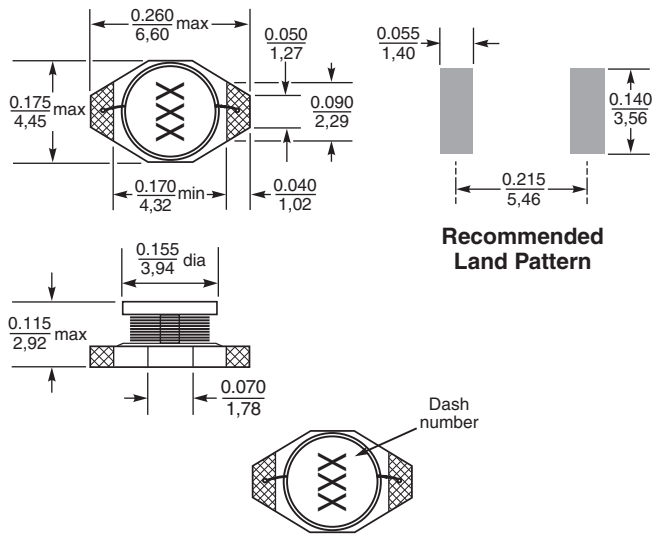
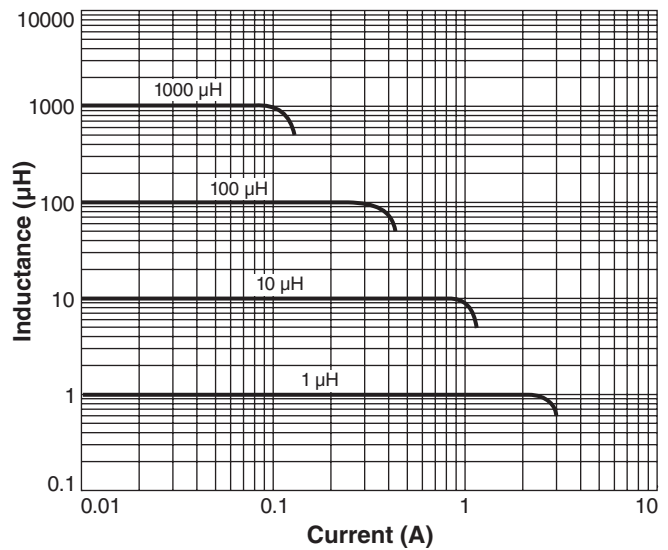


SMT Power Inductors – DO1608C Series

Typical L vs Frequency



Typical L vs Current



Recommended Land Pattern

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



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