



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

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 V_{rms}, 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 the specified temperature rise from 25°C ambient.

5. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

SPICE models ON OUR WEB SITE OR CD

Coilcraft[®]

Specifications subject to change without notice.

Please check our website for latest information.

Document 177-1 Revised 12/11/08

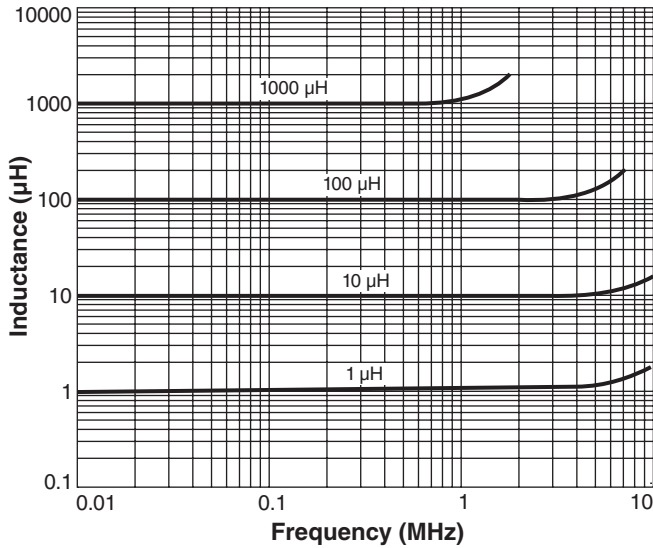
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail info@coilcraft.com Web <http://www.coilcraft.com>

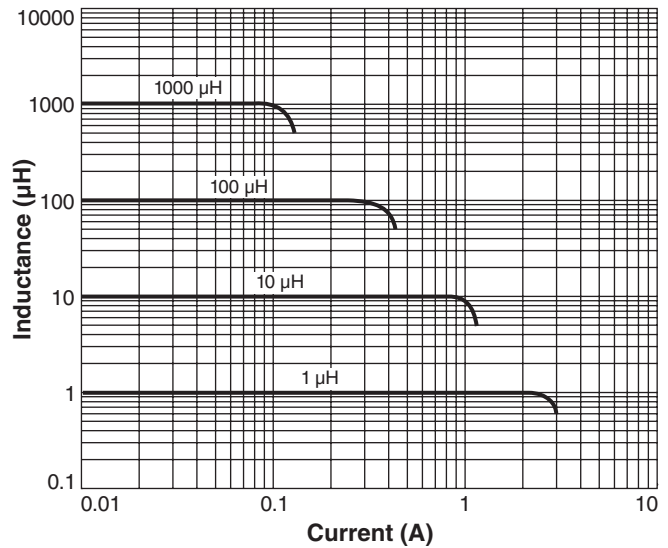


SMT Power Inductors – DO1608C Series

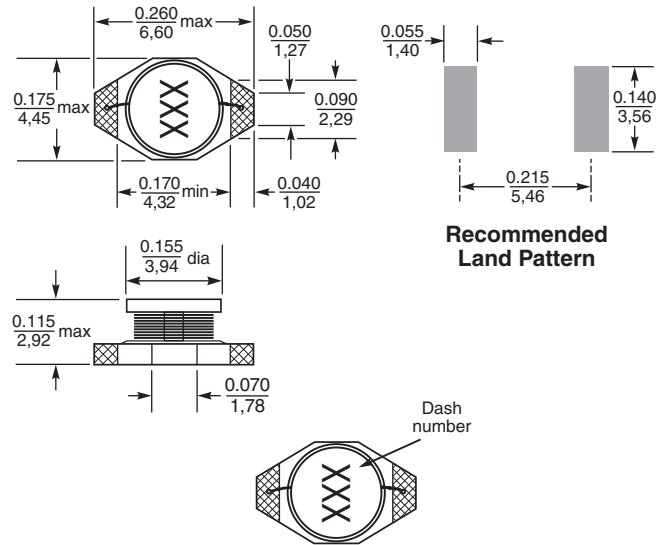
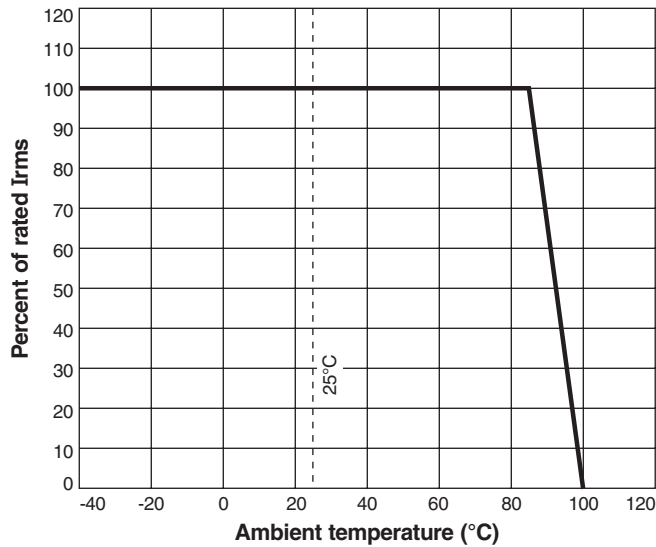
Typical L vs Frequency



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 details.

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



Specifications subject to change without notice. Please check our website for latest information.

Document 177-2 Revised 12/11/08

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail info@coilcraft.com Web <http://www.coilcraft.com>