

# 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](http://www.coilcraft.com/coreloss)

**Terminations** RoHS compliant electroplated gold (<50 µin) over nickel over moly-manganese. Other terminations available at additional cost.

**Weight** 128– 164 mg

**Ambient temperature** –40°C to +85°C

**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)

**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 <sup>1</sup>	L <sup>2</sup> (µH)	% tol <sup>3</sup>	DCR max (Ohms)	SRF typ (MHz)	Isat <sup>4</sup> (A)	Irms (A) <sup>5</sup>	
						20°C rise	40°C rise
DO1608C-102ML_	1.0	<b>20</b>	0.05	130	2.9	1.90	2.70
DO1608C-152ML_	1.5	<b>20</b>	0.06	115	2.6	1.90	2.65
DO1608C-222ML_	2.2	<b>20</b>	0.07	100	2.3	1.85	2.55
DO1608C-272ML_	2.7	<b>20</b>	0.08	75	2.1	1.80	2.45
DO1608C-332ML_	3.3	<b>20</b>	0.08	70	2.0	1.60	2.20
DO1608C-472ML_	4.7	<b>20</b>	0.09	50	1.5	1.40	1.90
DO1608C-682ML_	6.8	<b>20</b>	0.13	45	1.2	1.20	1.60
DO1608C-822ML_	8.2	<b>20</b>	0.16	40	1.15	1.10	1.55
DO1608C-103ML_	10	<b>20</b>	0.16	35	1.10	1.10	1.50
DO1608C-153ML_	15	<b>20</b>	0.23	30	0.90	0.90	1.25
DO1608C-223_L_	22	<b>20,10</b>	0.37	20	0.70	0.75	0.95
DO1608C-333_L_	33	<b>20,10</b>	0.51	15	0.58	0.60	0.80
DO1608C-473_L_	47	<b>20,10</b>	0.64	14	0.50	0.52	0.70
DO1608C-683_L_	68	<b>20,10</b>	0.86	11	0.40	0.44	0.60
DO1608C-104_L_	100	<b>20,10</b>	1.27	9.0	0.31	0.37	0.50
DO1608C-154_L_	150	<b>20,10</b>	2.00	6.0	0.27	0.28	0.39
DO1608C-224_L_	220	<b>20,10</b>	3.11	5.5	0.22	0.23	0.31
DO1608C-334_L_	330	<b>20,10</b>	3.80	5.0	0.18	0.22	0.30
DO1608C-474_L_	470	<b>20,10</b>	5.06	4.0	0.16	0.20	0.26
DO1608C-684_L_	680	<b>20,10</b>	9.20	3.0	0.14	0.14	0.19
DO1608C-105_L_	1000	<b>20,10</b>	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.

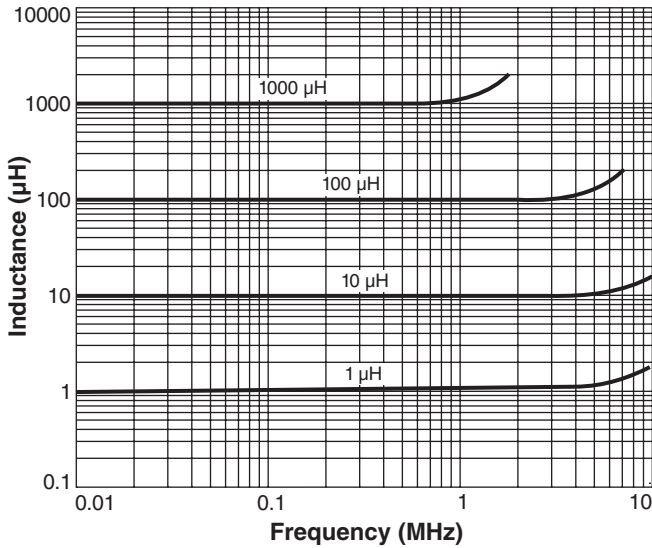
2. Tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
3. Tolerances in bold are stocked for immediate shipment
4. DC current at 25°C that causes 10% (typ) inductance drop from its value without current.  
[Click for temperature derating information.](#)
5. Current that 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

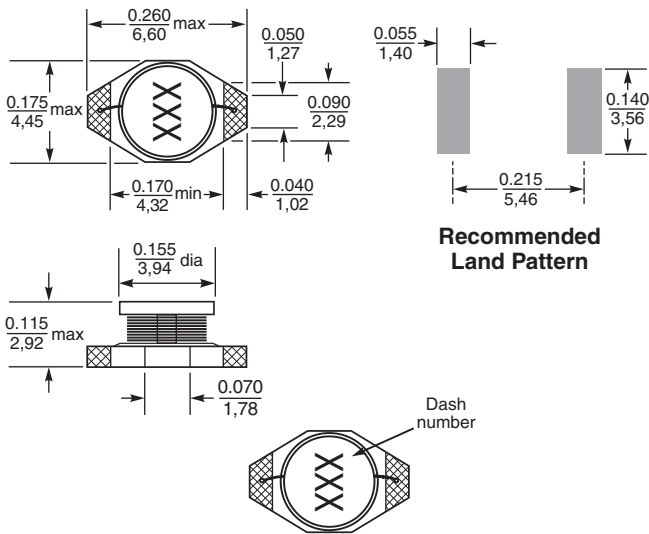
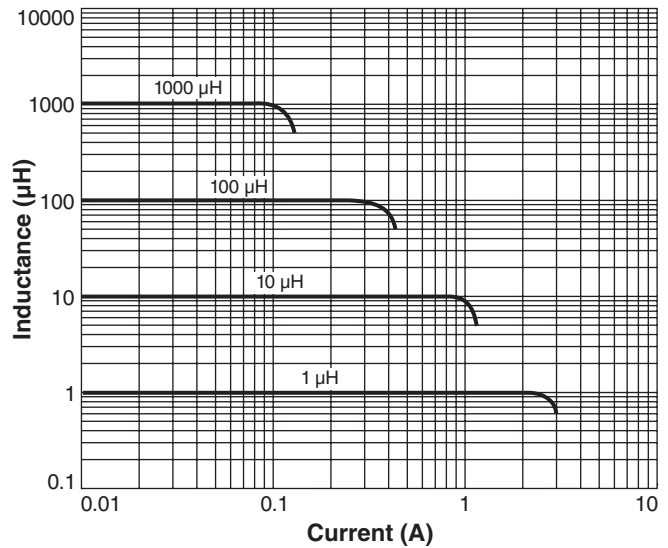


# SMT Power Inductors – DO1608C Series

## Typical L vs Frequency



## Typical L vs Current



**Recommended Land Pattern**

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



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Document 177-2 Revised 04/04/23

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