



SMT Power Inductors – DO1608C Series



The DO1608C Series has a footprint of only 0.26" × 0.175" (6,6 mm × 4,5 mm). Their high energy storage and very low resistance make them the ideal inductors for DC-DC conversion in notebook computers, PDAs, step-up or step-down converters, flash memory programmers, etc.

For reliable surface mounting, we've designed the DO Series with a flat top and robust temperature deflection to prevent damage during solder reflow.

In addition to the standard versions shown here, custom inductors are available to meet your exact requirements.

Coilcraft **Designer's Kit C377** contains three samples each of the parts shown. To order, please contact Coilcraft or visit <http://order.coilcraft.com>.

SPICE models ON OUR WEB SITE OR CD

Part number ¹	L ±20% ² (µH)	DCR max (Ohms)	SRF typ (MHz)	Isat ³ (A)	Irms ⁴ (A)
DO1608C-102ML_	1.0	0.05	130	2.9	2.9
DO1608C-152ML_	1.5	0.06	115	2.6	2.8
DO1608C-222ML_	2.2	0.07	100	2.3	2.4
DO1608C-272ML_	2.7	0.08	75	2.1	2.1
DO1608C-332ML_	3.3	0.08	70	2.0	2.0
DO1608C-472ML_	4.7	0.09	50	1.5	1.5
DO1608C-682ML_	6.8	0.13	45	1.2	1.4
DO1608C-822ML_	8.2	0.16	40	1.15	1.3
DO1608C-103ML_	10	0.16	35	1.10	1.2
DO1608C-153ML_	15	0.23	30	0.90	1.1
DO1608C-223ML_	22	0.37	20	0.70	0.8
DO1608C-333ML_	33	0.51	15	0.58	0.6
DO1608C-473ML_	47	0.64	14	0.50	0.5
DO1608C-683ML_	68	0.86	11	0.40	0.4
DO1608C-104ML_	100	1.27	9	0.31	0.3
DO1608C-154ML_	150	2.00	6	0.27	0.25
DO1608C-224ML_	220	3.11	5.5	0.22	0.20
DO1608C-334ML_	330	3.80	5	0.18	0.16
DO1608C-474ML_	470	5.06	4	0.16	0.15
DO1608C-684ML_	680	9.20	3	0.14	0.12
DO1608C-105ML_	1000	13.8	2	0.10	0.07

1. When ordering, please specify **termination** and **packaging** codes:

DO1608C-105ML $\begin{matrix} L \\ C \end{matrix}$

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.
 3. DC current at which the inductance drops 10% (typ) from its value without current.
 4. Current that causes a 15°C temperature rise from 25°C ambient.
 5. **Ambient temperature range:** -40°C to +85°C with Irms current
+85°C to +100°C with derated current
 6. **Storage temperature range:** Component: -55°C to +85°C
Packaging: -55°C to +80°C
 7. **Resistance to soldering heat:** Three reflows at >217°C for 90 seconds (+260°C ±5°C for 20–40 seconds), allowing parts to cool to room temperature between.
 8. Electrical specifications at 25°C.
- See Qualification Standards section for environmental and test data.
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Coilcraft®

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

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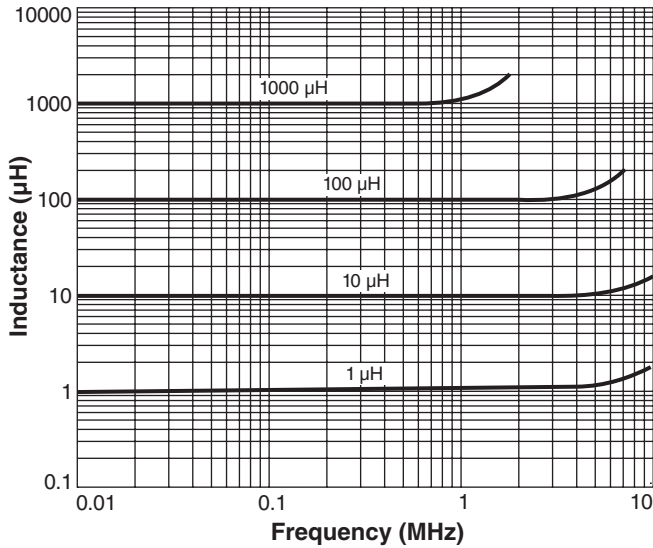
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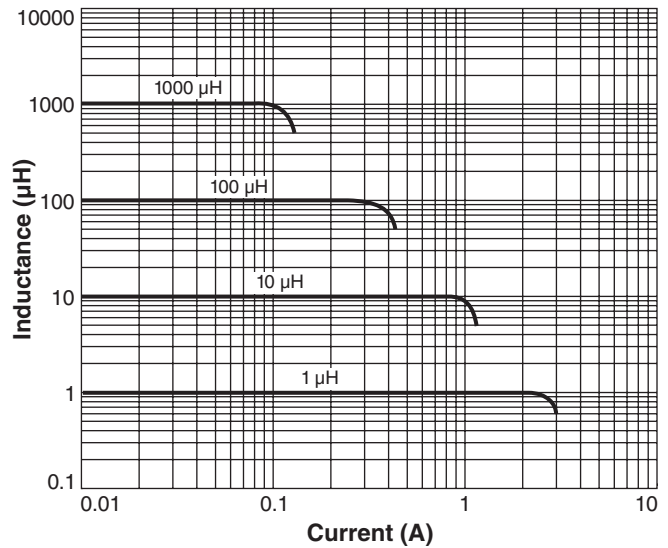


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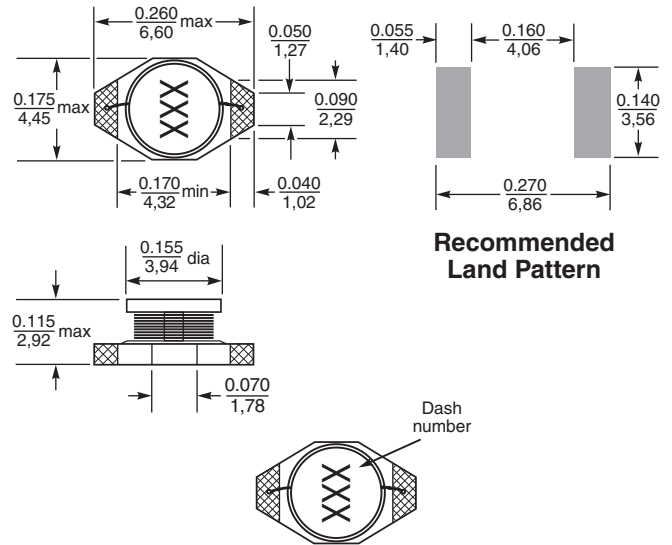
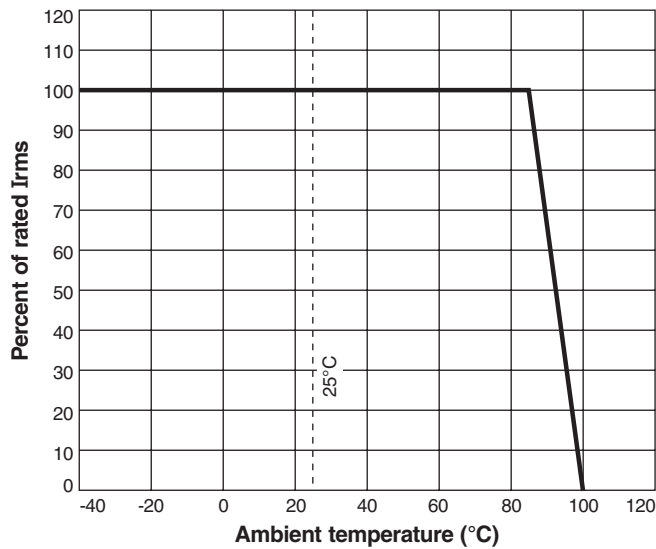
Typical L vs Frequency



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.

- Weight:** 128 – 164 mg
 - Terminations:** Gold over nickel over moly-manganese
 - Tape and reel:** 750/7" reel; 2500/13" reel 12 mm tape width
- For packaging data see Tape and Reel Specifications section.



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