



# SMT Power Inductors - DS1608C Series



These shielded, ultraminiature inductors can help achieve significantly longer battery life in handheld communication devices and other portable products.

They offer the highest efficiency, smallest size and lowest cost of any comparable part. DCR is 10 to 60% lower than other inductors, with greatest improvements seen at values from 100 to 10,000  $\mu\text{H}$ . Their flat top and heat resistant materials ensure trouble-free assembly and reflow operations.

Coilcraft **Designer's Kit C315** contains samples of each of the standard parts shown. To order, contact Coilcraft or visit <http://order.coilcraft.com>.

**SPICE models** ON OUR WEB SITE OR CD

Part number <sup>1</sup>	L $\pm 20\%$ <sup>2</sup> ( $\mu\text{H}$ )	Q min	DCR max (Ohms)	SRF typ (MHz)	Isat <sup>3</sup> (A)
DS1608C-102ML_	1.0	30 @ 200 kHz	0.040	250	1.4
DS1608C-152ML_	1.5	30 @ 200 kHz	0.045	125	0.93
DS1608C-222ML_	2.2	40 @ 200 kHz	0.050	120	0.92
DS1608C-332ML_	3.3	40 @ 200 kHz	0.055	120	0.75
DS1608C-472ML_	4.7	40 @ 200 kHz	0.060	105	0.58
DS1608C-682ML_	6.8	40 @ 200 kHz	0.065	50	0.58
DS1608C-822ML_	8.2	40 @ 200 kHz	0.070	42	0.47
DS1608C-103ML_	10	40 @ 200 kHz	0.075	38	0.37
DS1608C-153ML_	15	40 @ 100 kHz	0.090	33	0.31
DS1608C-223ML_	22	40 @ 100 kHz	0.11	25	0.30
DS1608C-333ML_	33	40 @ 100 kHz	0.19	20	0.30
DS1608C-473ML_	47	40 @ 100 kHz	0.23	20	0.24
DS1608C-683ML_	68	40 @ 100 kHz	0.29	15	0.17
DS1608C-104ML_	100	40 @ 100 kHz	0.48	10	0.13
DS1608C-154ML_	150	40 @ 100 kHz	0.59	9	0.10
DS1608C-224ML_	220	40 @ 100 kHz	0.77	6	0.10
DS1608C-334ML_	330	40 @ 100 kHz	1.4	5	0.07
DS1608C-474ML_	470	40 @ 100 kHz	1.8	4	0.06
DS1608C-684ML_	680	40 @ 100 kHz	2.2	3	0.055
DS1608C-105ML_	1000	40 @ 100 kHz	3.4	2	0.045
DS1608C-155ML_	1500	50 @ 100 kHz	4.2	2	0.035
DS1608C-225ML_	2200	50 @ 100 kHz	8.5	2	0.028
DS1608C-335ML_	3300	50 @ 100 kHz	11.0	1	0.024
DS1608C-475ML_	4700	50 @ 100 kHz	13.9	1	0.021
DS1608C-685ML_	6800	50 @ 100 kHz	25.0	1	0.019
DS1608C-106ML_	10000	50 @ 100 kHz	32.8	0.8	0.017

1. When ordering, please specify **packaging** code:

**DS1608C-106ML C**

**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. Inductance tested at 0.1 Vrms, 100 kHz, 0 Adc.

3. DC current at which the inductance drops 30% (typ.) from its value without current.

4. Operating temperature -40°C to +85°C.

5. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

See Color Coding section for part marking data.

**Coilcraft**<sup>®</sup>

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

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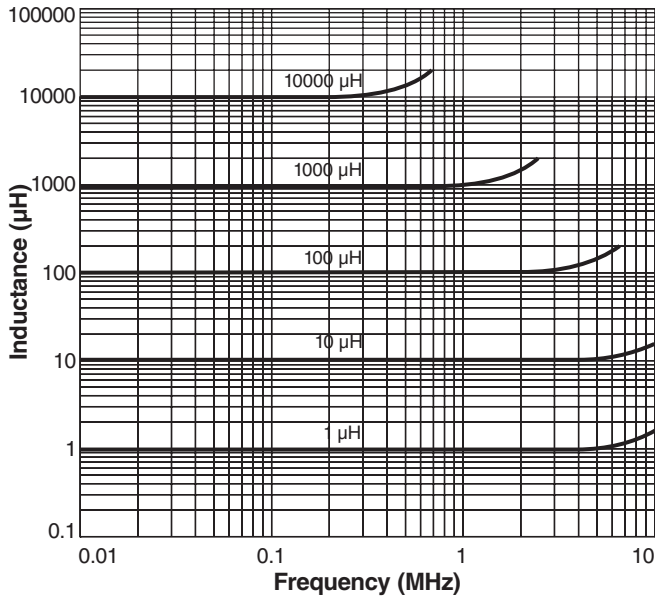
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>

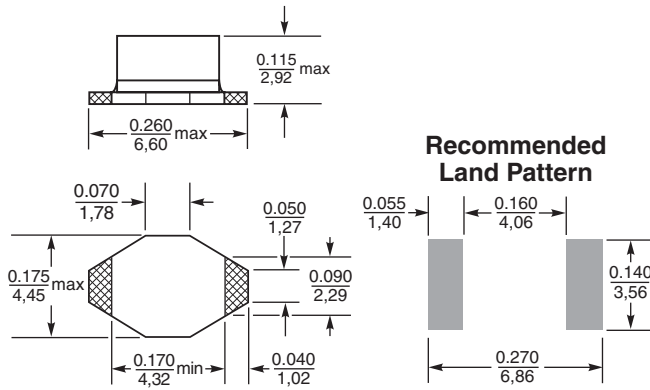
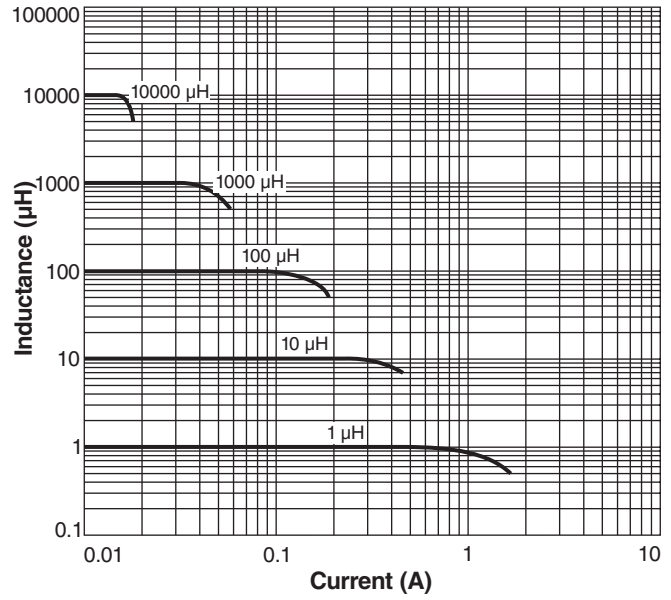


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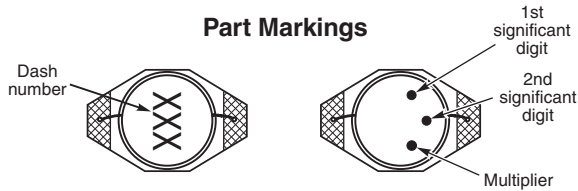
## Typical L vs Frequency



## Typical L vs Current



### Part Markings



**Weight:** 144 – 167 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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 Please check our website for latest information.

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

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>