



# SMT Power Inductors – DT1608 Series



The Coilcraft DT1608 Series represents the ultimate in cost-effective, miniature power inductors. The DT Series is magnetically shielded and the materials used provide natural heat sinking. This allows these parts to be used at relatively high currents. Even at 150% of rated current, the temperature rise is less than 15°C.

Because of their “swinging” inductance vs current characteristics, the DT1608 Series can be used as ultra high L inductors at zero or low current.

For free evaluation samples or to order, contact Coilcraft or visit [www.coilcraft.com](http://www.coilcraft.com).

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

Specifications				Operating Parameters			
Part number <sup>1</sup>	Inductance $\pm 20\%^2$ ( $\mu\text{H}$ )	DCR max (Ohms)	SRF typ (MHz)	Inductance rating <sup>3</sup> ( $\mu\text{H}$ )	Current rating <sup>4</sup> (A)	Energy storage max ( $\mu\text{Joules}$ )	Switching frequency max
DT1608C-102	1.0	0.065	180	0.60	2.0	1.8	1 MHz
DT1608C-152	1.5	0.070	120	0.80	1.9	1.8	1 MHz
DT1608C-222	2.2	0.075	100	0.90	1.5	1.8	1 MHz
DT1608C-332	3.3	0.080	70	1.5	1.2	1.4	1 MHz
DT1608C-472	4.7	0.085	60	2.0	1.2	1.6	1 MHz
DT1608C-682	6.8	0.090	50	3.0	1.0	1.9	1 MHz
DT1608C-103	10	0.125	45	5.0	0.7	1.2	1 MHz
DT1608C-153	15	0.135	35	6.0	0.6	1.1	1 MHz
DT1608C-223	22	0.160	25	10	0.5	1.2	1 MHz
DT1608C-333	33	0.275	20	12	0.45	1.5	1 MHz
DT1608C-473	47	0.300	17	20	0.34	1.3	1 MHz
DT1608C-683	68	0.575	14	30	0.29	1.4	1 MHz
DT1608C-104	100	1.10	2	40	0.24	1.5	1 MHz
DT1608C-154	150	1.40	7	60	0.20	1.4	500 kHz
DT1608C-224	220	2.25	7	90	0.17	1.6	500 kHz
DT1608C-334	330	2.90	6	100	0.16	1.4	500 kHz
DT1608C-474	470	3.60	4	150	0.14	1.5	500 kHz
DT1608C-684	680	4.55	3.5	200	0.12	1.4	500 kHz
DT1608C-105	1000	8.10	2.5	400	0.08	1.4	500 kHz

1. Part number on reel label will have a suffix to indicate packaging: C = machine ready 7" reel, B = partial reel, D = machine-ready 13" reel.

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

3. Measured at the rated current. Refer to L vs Current curves for more detail.

4. Average maximum allowable current. DT Series inductors are designed for current spikes as high as 2 x the current rating.

5. Operating temperature range -40°C to +85°C.

6. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

See Color Coding section for part marking information.

**Coilcraft**<sup>®</sup>

Specifications subject to change without notice.

Please check our website for latest information.

Document 178-1 Revised 10/31/03

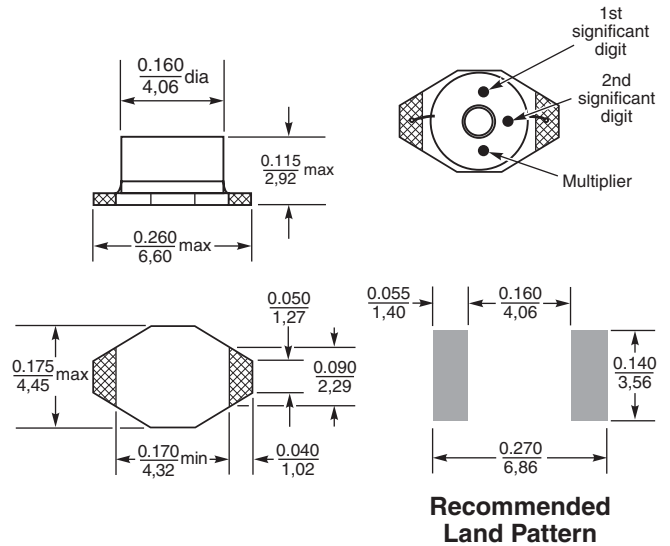
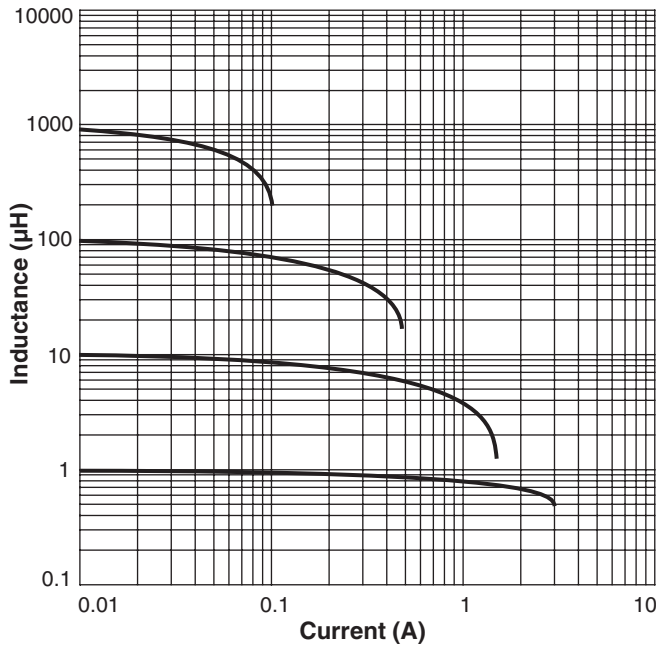
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

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



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## Typical L vs Current



**Weight:** 136 – 157 mg  
**Terminations:** Nickel/gold 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. Document 178-2 Revised 12/10/04

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