

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 large 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.

Coilcraft **Designer's Kit C104** contains 3 samples of each of the values shown as well as all standard DT3316 Series parts. To order, contact Coilcraft or visit <http://order.coilcraft.com>.

PSPICE models SEE DOC 209

Specifications				Operating Parameters			
Part Number	0 Adc Inductance @ 100 kHz (μH ± 20%)	DCR Max (Ohms)	SRF typ (MHz)	Inductance Rating ¹ (μH)	Current Rating ² (A)	Max. Energy Storage (μJoules)	Max. Switching Frequency
DT1608C-102	1.0	.045	180	.60	2.0	1.8	1 MHz
DT1608C-152	1.5	.050	120	.80	1.9	1.8	1 MHz
DT1608C-222	2.2	.060	100	.90	1.5	1.8	1 MHz
DT1608C-332	3.3	.070	70	1.5	1.2	1.4	1 MHz
DT1608C-472	4.7	.080	60	2.0	1.2	1.6	1 MHz
DT1608C-682	6.8	.085	50	3.0	1.0	1.9	1 MHz
DT1608C-103	10	.095	45	5.0	.7	1.2	1 MHz
DT1608C-153	15	.135	35	6.0	.6	1.1	1 MHz
DT1608C-223	22	.160	25	10	.5	1.2	1 MHz
DT1608C-333	33	.275	20	12	.45	1.5	1 MHz
DT1608C-473	47	.300	17	20	.34	1.3	1 MHz
DT1608C-683	68	.575	14	30	.29	1.4	1 MHz
DT1608C-104	100	1.10	12	40	.24	1.5	1 MHz
DT1608C-154	150	1.40	7	60	.20	1.4	500 kHz
DT1608C-224	220	2.25	7	90	.17	1.6	500 kHz
DT1608C-334	330	2.90	6	100	.16	1.4	500 kHz
DT1608C-474	470	3.60	4	150	.14	1.5	500 kHz
DT1608C-684	680	4.55	3.5	200	.12	1.4	500 kHz
DT1608C-105	1000	8.10	2.5	400	.08	1.4	500 kHz

For environmental data see “Product Specifications” (Document 164).

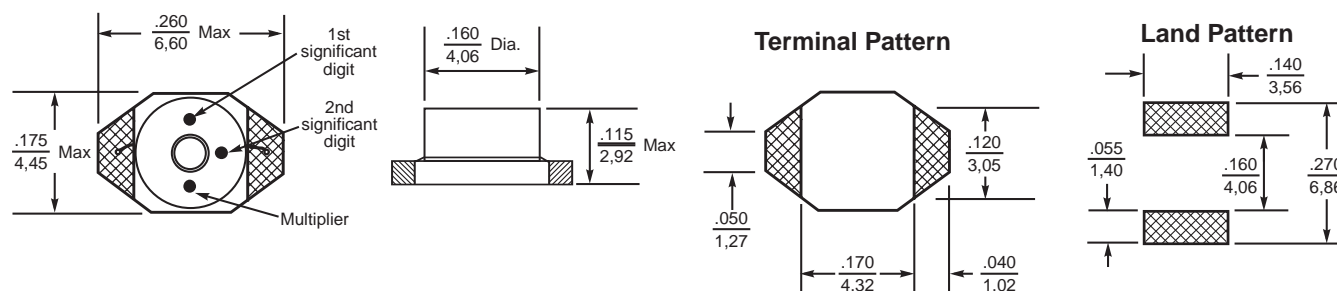
1. Measured at the rated current. Refer to curves below for more detail.
2. Average maximum allowable current. DT Series inductors are designed for current spikes as high as 2X the current rating.
3. Operating temperature range -40°C to +85°C.
4. Electrical specifications at 25°C.

Coilcraft

Specifications subject to change without notice. Document 178-1 Revised 5/19/99

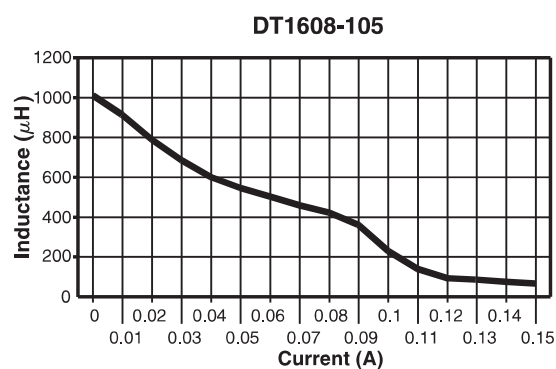
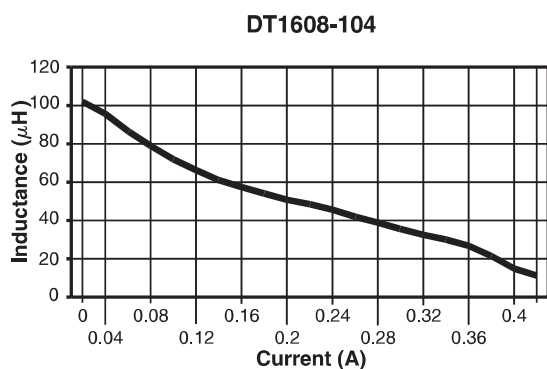
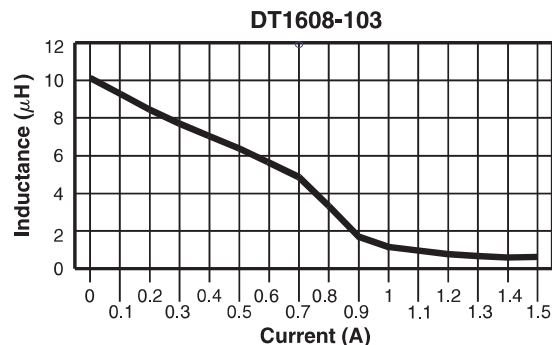
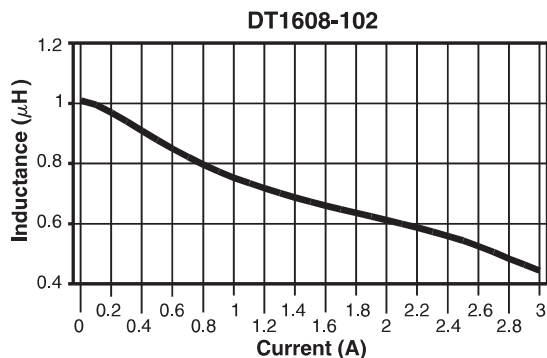
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469
E-mail info@coilcraft.com Data by Fax 800/651-6974 Web <http://www.coilcraft.com>

SMT Power Inductors –DT1608 Series



Parts/reel: 7" 750; 13" 2,500 Tape width: 12 mm
For packaging data see "Tape and Reel Specifications" (Document 173)

Typical Inductance vs. Current



Coilcraft

Specifications subject to change without notice. Document 178-2 Revised 1/6/98

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469
E-mail info@coilcraft.com Data by Fax 800/651-6974 Web http://www.coilcraft.com