

SMT Power Inductors—DT3316 Series



These magnetically shielded inductors are designed for a wide variety of applications including board mounted DC-DC converters, miniature power supplies, and voltage multiplying circuits. They function equally well in filter and smoothing circuit applications.

The Coilcraft DT Series represents the ultimate in cost-effective miniature power inductors. They are constructed of materials specially developed for surface mount applications to ensure the best possible reliability and ease of use and handling.

Coilcraft **Designer's Kit C104** contains three samples of each of the values shown as well as all standard DT1608 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 ($\mu\text{H} \pm 20\%$)	DCR Max (Ohms)	SRF typ (MHz)	Inductance Rating ¹ (μH)	Current Rating ² (A)	Max Energy Storage (μJoules)	Max Switching Frequency
DT3316P-102	1.0	.025	60	.50	5.0	9	1 MHz
DT3316P-152	1.5	.030	55	.70	5.0	12	1 MHz
DT3316P-222	2.2	.035	55	1.0	5.0	15	1 MHz
DT3316P-332	3.3	.040	50	1.5	5.0	16	1 MHz
DT3316P-472	4.7	.045	45	2.0	3.0	10	1 MHz
DT3316P-682	6.8	.050	40	4.0	2.5	14	1 MHz
DT3316P-103	10	.055	35	5.0	2.0	11	1 MHz
DT3316P-153	15	.060	25	6.0	1.8	12	1 MHz
DT3316P-223	22	.084	22	10	1.5	11	1 MHz
DT3316P-333	33	.090	18	12	1.3	13	1 MHz
DT3316P-473	47	.11	16	27	1.0	13	1 MHz
DT3316P-683	68	.15	12	40	.90	17	1 MHz
DT3316P-104	100	.29	9	50	.80	15	1 MHz
DT3316P-154	150	.36	8	80	.60	15	500 kHz
DT3316P-224	220	.39	6	90	.50	10	500 kHz
DT3316P-334	330	.73	5	150	.40	13	500 kHz
DT3316P-474	470	.88	4	200	.35	13	500 kHz
DT3316P-684	680	1.15	3	300	.30	13	500 kHz
DT3316P-105	1000	1.45	2.5	420	.25	13	500 kHz

For environmental data see "Product Specifications" (Document 164).

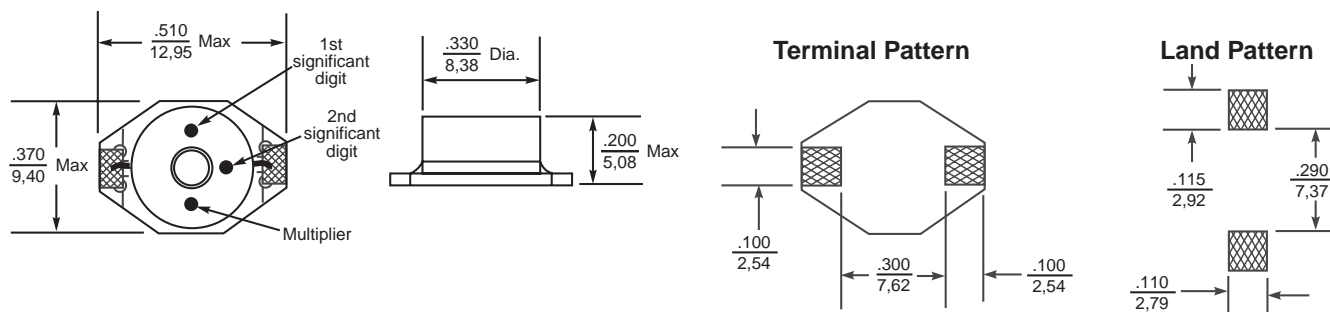
1. Measured at the rated current. Refer to curves below for more detail.
2. Average maximum allowable current. DT Series inductors are designed for current spikes as high as 2X the current rating.
3. Operating temperature range -40°C to $+85^{\circ}\text{C}$.
4. Electrical specifications at 25°C .

Coilcraft

Specifications subject to change without notice. Document 180-1 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>

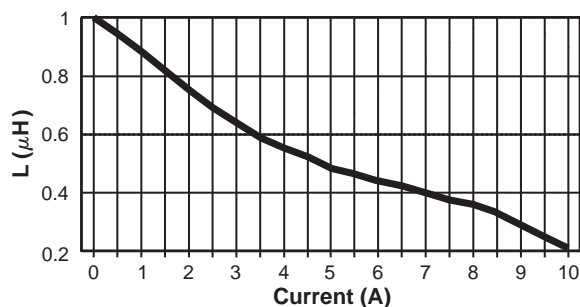
SMT Power Inductors –DT3316 Series



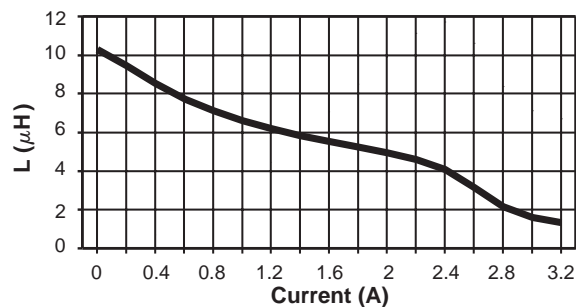
Parts/reel: 13" 1,000 Tape width: 24 mm
For packaging data see "Tape and Reel Specifications" (Document 173)

Typical Inductance vs. Current

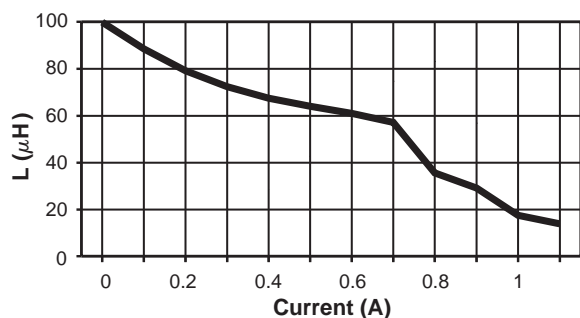
DT3316P-102



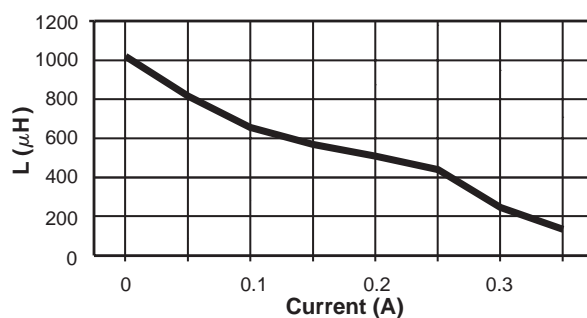
DT3316P-103



DT3316P-104



DT3316P-105



Coilcraft

Specifications subject to change without notice. Document 180-2 Revised 11/14/97

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>