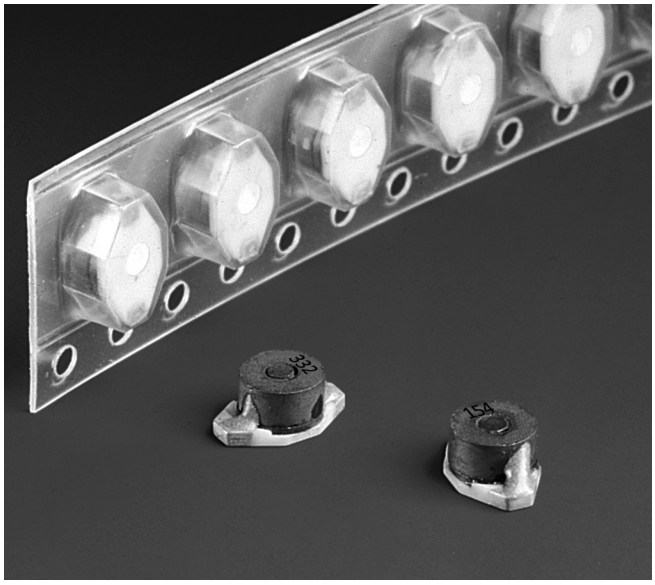
Shielded Power Inductors – DT1608C



- Low temperature rise allows use at up to 150% of rated current.
- "Swinging" inductance allows use as high L inductors.

Core material Ferrite
Ambient temperature –40°C to +85°C
Maximum part temperature +105°C (ambient + temp rise)
Storage temperature Component: –40°C to +105°C.
Tape and reel packaging: –40°C to +80°C
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.
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Coilcraft will continue to manufacture and support the DT1608C indefinitely. For new designs, consider the LPS4018 as an alternative to this series. The LPS4018 series is more cost effective, features a smaller footprint, lower profile and better current handling.

	Specifications			Operating Parameters			
Part number[1]	Inductance[2] ±20% (µH)	DCR max (Ohms)	SRF typ (MHz)	Inductance rating[3] (µH)	Current rating[4] (A)	Energy storage max (µJoules)	Switching frequency max
DT1608C-102ML_	1.0	0.065	180	0.60	2.0	1.8	1 MHz
DT1608C-152ML_	1.5	0.070	120	0.80	1.9	1.8	1 MHz
DT1608C-222ML_	2.2	0.075	100	0.90	1.5	1.8	1 MHz
DT1608C-332ML_	3.3	0.080	70	1.5	1.2	1.4	1 MHz
DT1608C-472ML_	4.7	0.085	60	2.0	1.2	1.6	1 MHz
DT1608C-682ML_	6.8	0.090	50	3.0	1.0	1.9	1 MHz
DT1608C-103ML_	10	0.125	45	5.0	0.7	1.2	1 MHz
DT1608C-153ML_	15	0.135	35	6.0	0.6	1.1	1 MHz
DT1608C-223ML_	22	0.160	25	10	0.5	1.2	1 MHz
DT1608C-333ML_	33	0.275	20	12	0.45	1.5	1 MHz
DT1608C-473ML_	47	0.300	17	20	0.34	1.3	1 MHz
DT1608C-683ML_	68	0.575	14	30	0.29	1.4	1 MHz
DT1608C-104ML_	100	1.10	12	40	0.24	1.5	1 MHz
DT1608C-154ML_	150	1.40	7.0	60	0.20	1.4	500 kHz
DT1608C-224ML_	220	2.25	7.0	90	0.17	1.6	500 kHz
DT1608C-334ML_	330	2.90	6.0	100	0.16	1.4	500 kHz
DT1608C-474ML_	470	3.60	4.0	150	0.14	1.5	500 kHz
DT1608C-684ML_	680	4.55	3.5	200	0.12	1.4	500 kHz
DT1608C-105ML_	1000	8.10	2.5	400	0.08	1.4	500 kHz

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

DT1608C-106MLC

Termination: **L** = RoHS compliant electroplated gold (<50 µin) 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).Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
D = 13″ machine-ready reel. EIA-481 embossed plastic tape (2500 parts per full reel).
B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Inductance tested at 0.1 Vrms, 100 kHz, 0 Adc.
3. Measured at the rated current. Refer to L vs Current curves for details.
4. Average maximum allowable current. DT Series inductors are designed for current spikes as high as twice the current rating.
5. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

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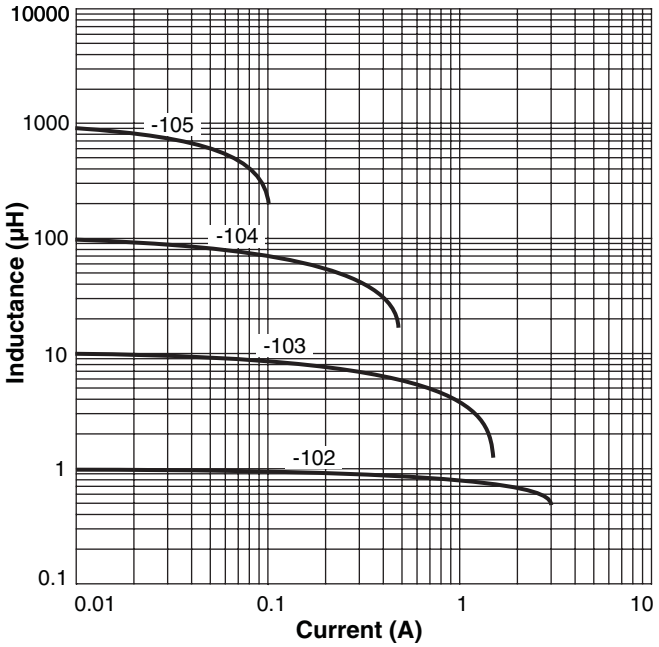
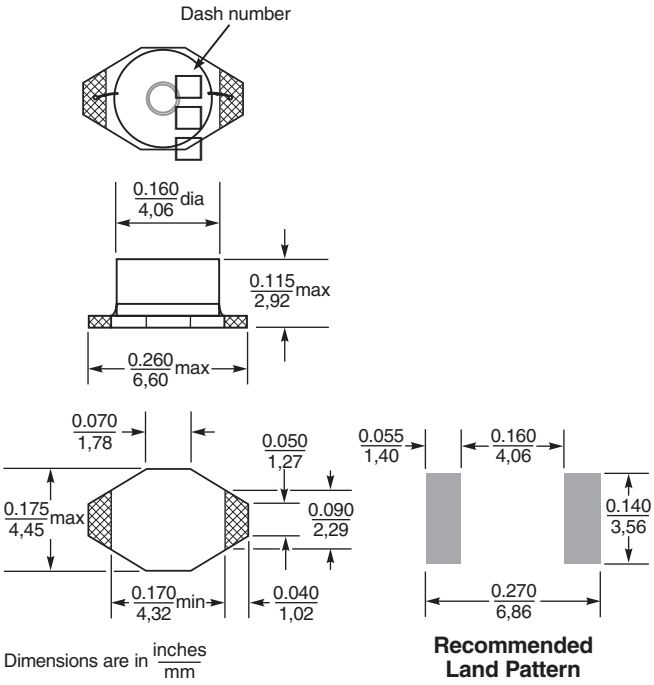
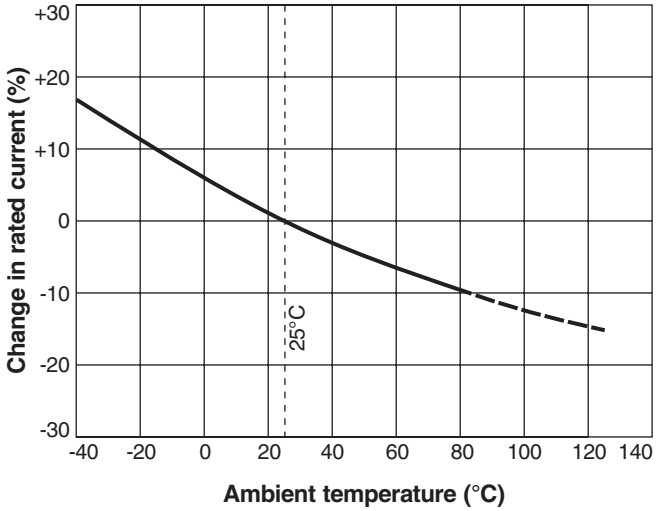
Typical L vs Current





Current Derating



Weight: 136– 157 mg

Tape and reel: 750/7″ reel; 2500/13″ reel 12 mm tape wide, 0.28 mm thick, 8 mm pocket spacing, 3.0 mm pocket depth.

Coilcraft
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