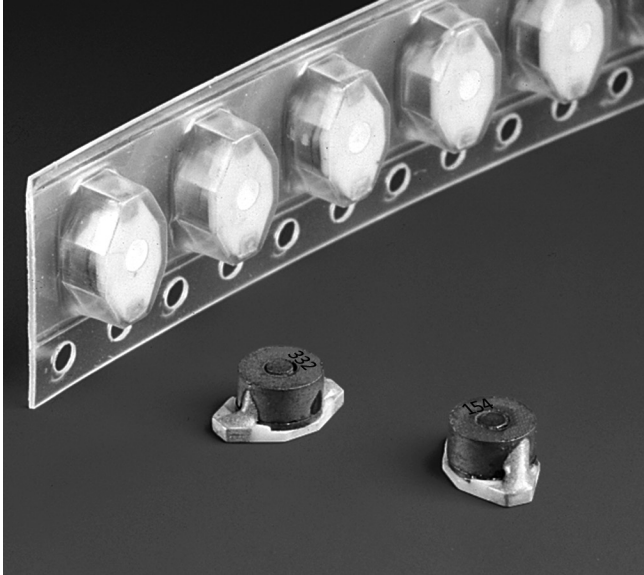




Shielded Power Inductors – DT1608C



- 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)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

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.

Part number ¹	Specifications			Operating Parameters			
	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).

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. 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.

SPICE models ON OUR WEB SITE

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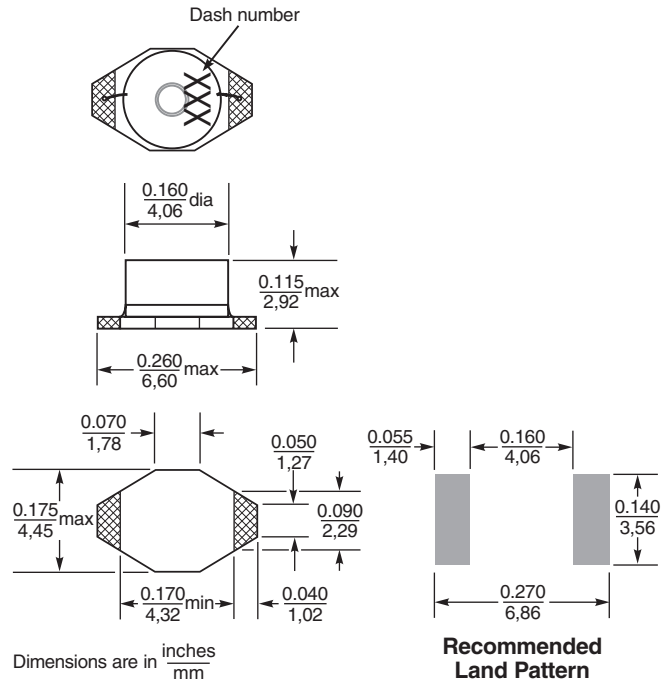
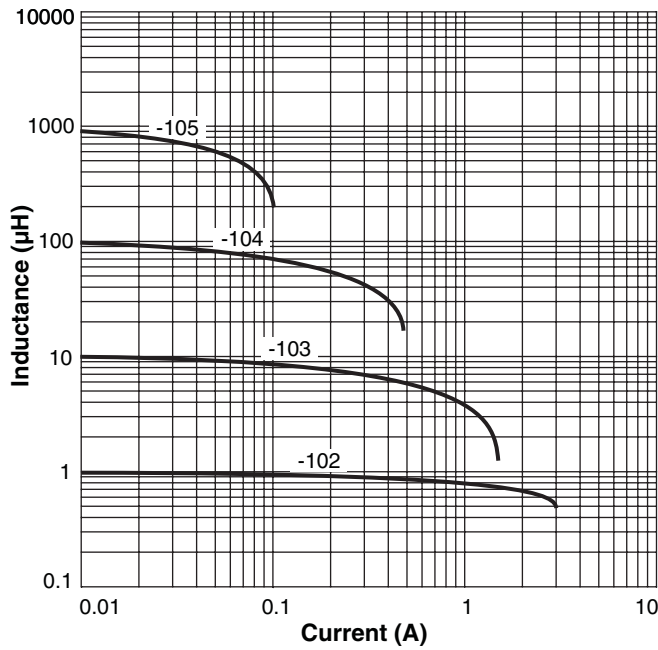
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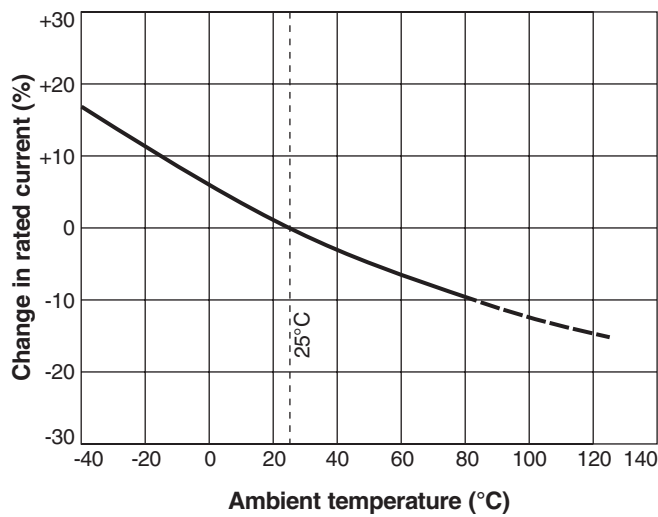


Shielded Power Inductors – DT1608C Series

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.



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