



Shielded Power Inductors – DS1608C



These shielded inductors can help achieve significantly longer battery life in handheld devices and other portable products.

They offer high efficiency and small size. Their flat top and heat resistant materials ensure trouble-free assembly and reflow operations.

For new designs, consider the MSS7341, MSS1038 or LPS4018 as alternatives to this series. These series are more cost effective and offer better current handling. In addition, the LPS4018 is a significantly smaller part. We will continue to manufacture and support the DS1608C indefinitely.

SPICE models ON OUR WEB SITE

Part number ¹	L ±20% ² (µH)	Q min	DCR max (Ohms)	SRF typ (MHz)	Isat ³ (A)
DS1608C-102ML_	1.0	30 @ 200 kHz	0.040	250	1.4
DS1608C-152ML_	1.5	30 @ 200 kHz	0.045	125	0.93
DS1608C-222ML_	2.2	40 @ 200 kHz	0.050	120	0.92
DS1608C-332ML_	3.3	40 @ 200 kHz	0.055	120	0.75
DS1608C-472ML_	4.7	40 @ 200 kHz	0.060	105	0.58
DS1608C-682ML_	6.8	40 @ 200 kHz	0.065	50	0.58
DS1608C-822ML_	8.2	40 @ 200 kHz	0.070	42	0.47
DS1608C-103ML_	10	40 @ 200 kHz	0.075	38	0.37
DS1608C-153ML_	15	40 @ 100 kHz	0.090	33	0.31
DS1608C-223ML_	22	40 @ 100 kHz	0.11	25	0.30
DS1608C-333ML_	33	40 @ 100 kHz	0.19	20	0.30
DS1608C-473ML_	47	40 @ 100 kHz	0.23	20	0.24
DS1608C-683ML_	68	40 @ 100 kHz	0.29	15	0.17
DS1608C-104ML_	100	40 @ 100 kHz	0.48	10	0.13
DS1608C-154ML_	150	40 @ 100 kHz	0.59	9	0.10
DS1608C-224ML_	220	40 @ 100 kHz	0.77	6	0.10
DS1608C-334ML_	330	40 @ 100 kHz	1.4	5	0.07
DS1608C-474ML_	470	40 @ 100 kHz	1.8	4	0.06
DS1608C-684ML_	680	40 @ 100 kHz	2.2	3	0.055
DS1608C-105ML_	1000	40 @ 100 kHz	3.4	2	0.045
DS1608C-155ML_	1500	50 @ 100 kHz	4.2	2	0.035
DS1608C-225ML_	2200	50 @ 100 kHz	8.5	2	0.028
DS1608C-335ML_	3300	50 @ 100 kHz	11.0	1	0.024
DS1608C-475ML_	4700	50 @ 100 kHz	13.9	1	0.021
DS1608C-685ML_	6800	50 @ 100 kHz	25.0	1	0.019
DS1608C-106ML_	10000	50 @ 100 kHz	32.8	0.8	0.017

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

DS1608C-106MLC

Termination: L = RoHS compliant gold 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. DC current at which the inductance drops 30% (typ.) from its value without current.

4. Electrical specifications at 25°C.

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

Core material Ferrite

Terminations RoHS compliant gold over nickel over moly-manganese. Other terminations available at additional cost.

Weight 144– 167 mg

Ambient temperature –40°C to +85°C with Irms current, +85°C to +125°C with derated current

Storage temperature Component: –40°C to +125°C.
 Tape and reel packaging: –40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

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

Packaging 750/7" reel; 2500/13" reel Plastic tape: 12 mm wide, 0.28 mm thick, 4 mm pocket spacing, 3 mm pocket depth

PCB washing Only pure water or alcohol recommended



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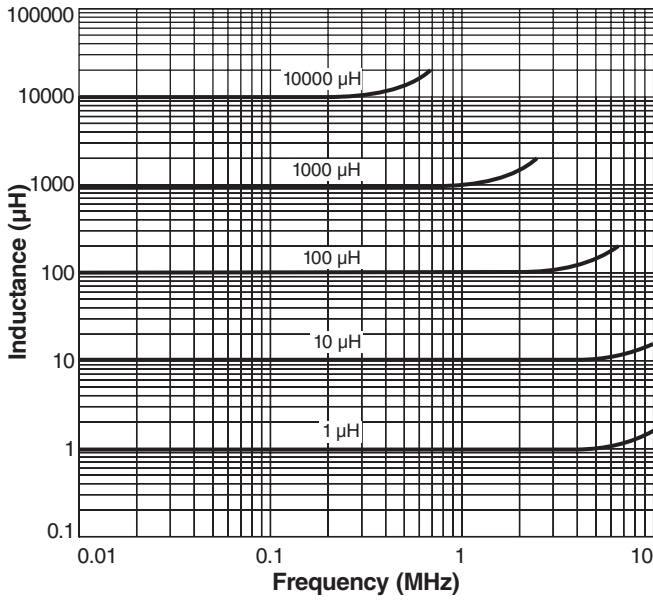
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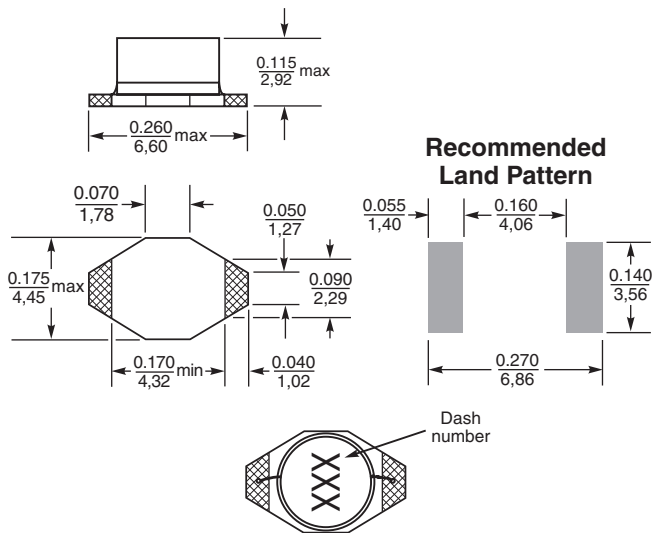
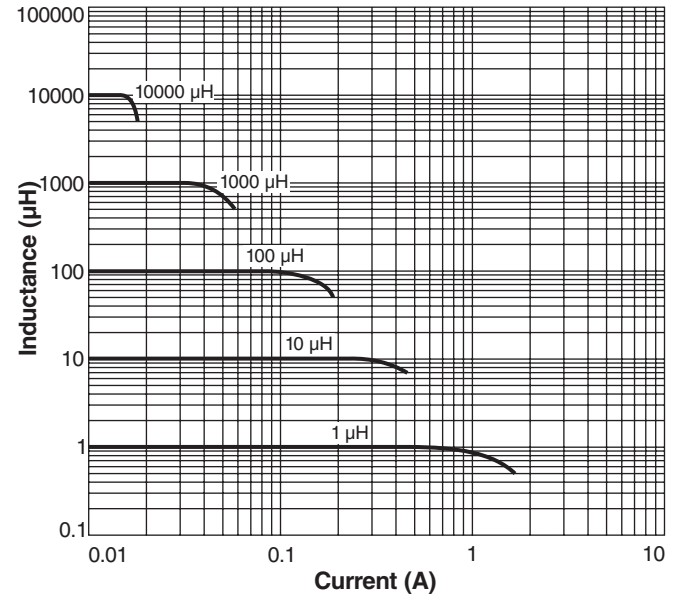


Shielded Power Inductors – DS1608

Typical L vs Frequency



Typical L vs Current



Part marking since Feb. 2005. Parts manufactured prior to that date may have color dots.
 Visit www.coilcraft.com/colrpowr.cfm for details.



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