



SMT Power Inductors—Series MSS1038



The MSS1038 series provides very high efficiency and excellent current handling capability in a rugged, low cost part. The magnetic shielding, small footprint and low profile allow high density mounting. The flat top ensures reliable pick and place handling.

These inductors are ideal for use in DC-DC converters, LCD panels, and portable devices where low cost and high reliability are critical. They are available in 31 inductance values from 1.0 μ H to 1000 μ H.

Coilcraft **Designer's Kit C391** contains samples of all 30% tolerance parts. To order, contact Coilcraft or purchase online at <http://order.coilcraft.com>.

SPICE models ON OUR WEB SITE OR CD

Part number ¹	L ² (μ H)	Percent tol ³	DCR max (mOhms)	SRF typ ⁴ (MHz)	Isat ⁵ (A)	Irms (A) ⁶	
						20°C rise	40°C rise
MSS1038-102NL_	1.0	30	6.0	138	9.00	7.30	10.00
MSS1038-152NL_	1.5	30	8.1	81	8.30	5.60	7.85
MSS1038-252NL_	2.5	30	10.0	61	7.50	4.65	6.65
MSS1038-382NL_	3.8	30	13.0	45	6.00	4.25	6.05
MSS1038-522NL_	5.2	30	22.0	37	5.50	3.60	5.10
MSS1038-702NL_	7.0	30	27.0	33	4.80	3.10	4.35
MSS1038-103NL_	10.0	30	35.0	29	4.40	2.90	4.05
MSS1038-123_L_	12.0	30,20	41.0	25	4.02	2.85	4.00
MSS1038-153_L_	15.0	30,20	50.0	21	3.60	2.70	3.80
MSS1038-183_L_	18.0	30,20	65.0	18	3.20	2.25	3.35
MSS1038-223_L_	22.0	30,20	73.0	15	2.90	1.90	2.85
MSS1038-273_L_	27.0	30,20	89.0	15	2.54	1.65	2.35
MSS1038-333_L_	33.0	30,20	93.0	13	2.30	1.60	2.30
MSS1038-393_L_	39.0	30,20	112.0	12	2.20	1.55	2.25
MSS1038-473_L_	47.0	30,20	128.0	11	2.10	1.45	2.20
MSS1038-563_L_	56.0	30,20	180.0	11	1.92	1.40	1.85
MSS1038-683_L_	68.0	30,20	213.0	10	1.50	1.15	1.75
MSS1038-823_L_	82.0	30,20	261.0	8	1.40	1.09	1.50
MSS1038-104_L_	100	30,20	304.0	6	1.35	1.05	1.45
MSS1038-124_L_	120	30,10	380.0	6	1.23	0.85	1.25
MSS1038-154_L_	150	30,10	506.0	6	1.15	0.80	1.20
MSS1038-184_L_	180	30,10	582.0	5	1.05	0.71	0.98
MSS1038-224_L_	220	30,10	756.0	5	0.92	0.70	0.97
MSS1038-274_L_	270	30,10	926.0	4	0.83	0.65	0.86
MSS1038-334_L_	330	30,10	1090.0	4	0.70	0.50	0.69
MSS1038-394_L_	390	30,10	1141.0	4	0.64	0.49	0.65
MSS1038-474_L_	470	30,10	1243.0	3	0.58	0.45	0.63
MSS1038-564_L_	560	30,10	1696.0	3	0.53	0.43	0.59
MSS1038-684_L_	680	30,10	1926.0	3	0.48	0.36	0.50
MSS1038-824_L_	820	30,10	2596.0	3	0.44	0.34	0.47
MSS1038-105_L_	1000	30,10	2853.0	3	0.40	0.33	0.45

1. Please specify **tolerance**, **termination** and **packaging** codes:

MSS1038-105 K L C

Tolerance: **K** = 10% **M** = 20% **N** = 30%

Termination: **L** = RoHS compliant matte-tin over nickel over copper.
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 (250 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 (1000 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc.
3. Tolerances in bold are stocked for immediate shipment.
4. SRF measured using an Agilent/HP 8753D or equivalent.
5. DC current at which the inductance drops 35% max from its value without current.
6. Average current for temperature rise from 25°C ambient.
7. Operating temperature range -40°C to +85°C.
8. Electrical specifications at 25°C.

Coilcraft[®]

Specifications subject to change without notice.
Please check our website for latest information.

Document 378-1 Revised 10/05/06

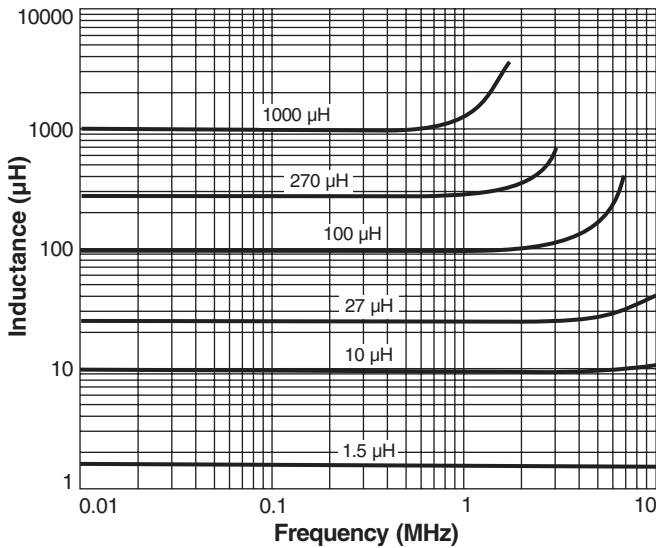
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail info@coilcraft.com Web <http://www.coilcraft.com>

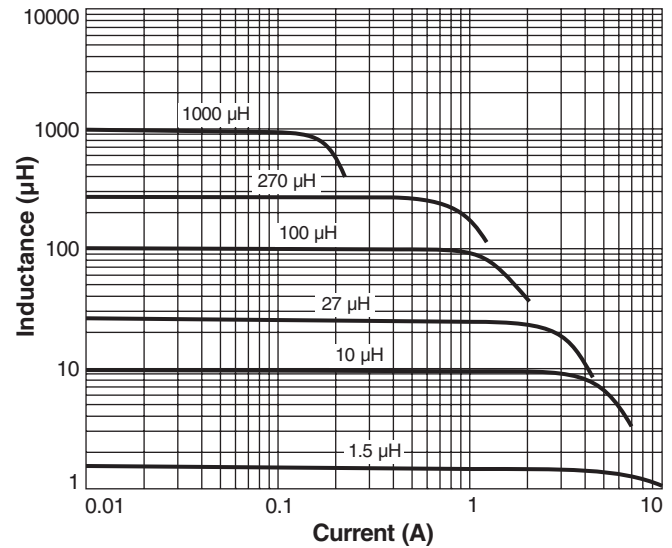


SMT Power Inductors – Series MSS1038

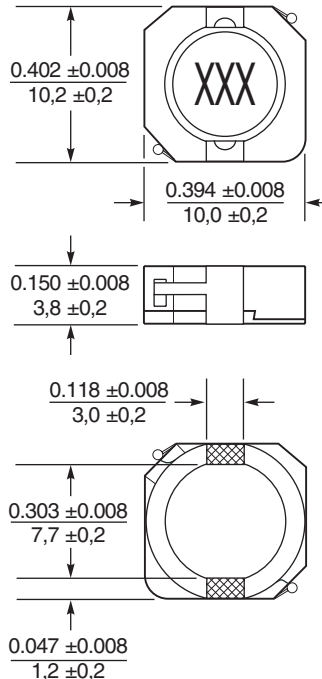
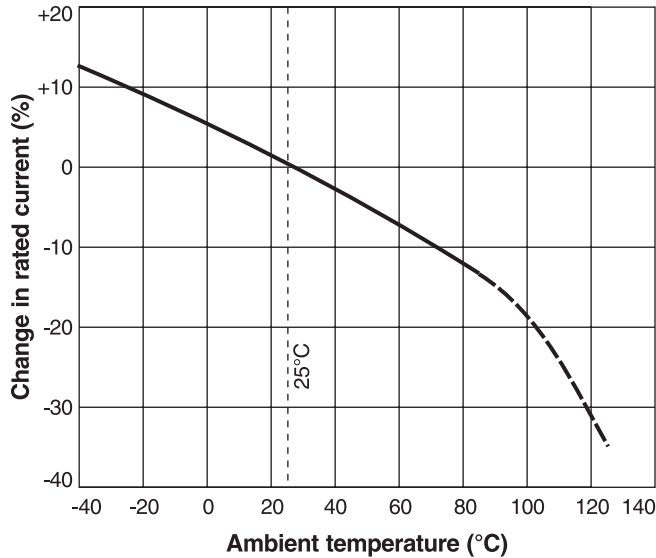
Typical L vs Frequency



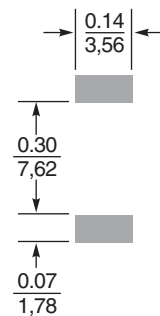
Typical L vs Current



Current Derating



Recommended Land Pattern



Weight: 1.5 g
Tape and reel: 250/7" reel; 1000/13" reel 24 mm tape width
 For packaging data see Tape and Reel Specifications section.



Specifications subject to change without notice.
 Please check our website for latest information.

Document 378-2 Revised 10/05/06

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail info@coilcraft.com Web <http://www.coilcraft.com>