



# SMT Power Inductors - MSS1278 Series



The MSS1278 Series provides high inductance and high efficiency in a rugged, low cost part.

The magnetic shielding and small footprint of these inductors allows high density mounting. The flat top ensures reliable pick and place handling.

They're ideal for use in DC-DC converters, LCD panels, and portable devices where low cost and high reliability are critical.

In addition to the standard values shown, Coilcraft can custom-engineer versions to meet specific applications.

Coilcraft **Designer's Kit C380** contains samples of all values shown. To order, contact Coilcraft or purchase on-line at <http://order.coilcraft.com>.

## SPICE models ON OUR WEB SITE OR CD

Part number <sup>1</sup>	L <sup>2</sup> ( $\mu$ H)	DCR max (Ohms)	SRF <sup>3</sup> typ (MHz)	Isat <sup>4</sup> (A)	Irms <sup>5</sup>	
					20°C rise (A)	40°C rise (A)
MSS1278-142ML_	1.4±20%	0.011	80.0	22.0	7.00	10.00
MSS1278-472ML_	4.7±20%	0.020	30.0	13.0	4.30	6.20
MSS1278-562ML_	5.6±20%	0.023	24.0	12.0	4.30	6.20
MSS1278-682ML_	6.8±20%	0.024	21.0	11.0	4.20	6.00
MSS1278-822ML_	8.2±20%	0.028	20.0	10.0	4.10	5.90
MSS1278-103ML_	10±20%	0.030	17.0	8.50	4.00	5.70
MSS1278-123ML_	12±20%	0.032	15.0	7.90	3.70	5.20
MSS1278-153ML_	15±20%	0.038	13.0	6.50	3.50	4.90
MSS1278-183ML_	18±20%	0.043	12.0	6.30	3.00	4.50
MSS1278-223ML_	22±20%	0.050	11.0	6.20	2.90	4.00
MSS1278-273ML_	27±20%	0.060	10.0	5.40	2.60	3.60
MSS1278-333ML_	33±20%	0.080	9.5	4.50	2.30	3.10
MSS1278-393ML_	39±20%	0.085	8.5	4.30	2.10	3.00
MSS1278-473ML_	47±20%	0.10	7.5	4.00	2.00	2.90
MSS1278-563ML_	56±20%	0.11	7.0	3.80	1.90	2.70
MSS1278-683ML_	68±20%	0.12	6.5	3.40	1.80	2.60
MSS1278-823ML_	82±20%	0.15	5.0	2.90	1.60	2.30
MSS1278-104ML_	100±20%	0.18	4.5	2.75	1.50	2.20
MSS1278-124KL_	120±10%	0.23	4.3	2.45	1.40	1.90
MSS1278-154KL_	150±10%	0.27	4.1	2.20	1.30	1.80
MSS1278-184KL_	180±10%	0.30	4.0	2.15	1.20	1.70
MSS1278-224KL_	220±10%	0.40	3.4	1.70	1.00	1.60
MSS1278-274KL_	270±10%	0.53	3.1	1.60	0.90	1.20
MSS1278-334KL_	330±10%	0.60	2.9	1.45	0.80	1.00
MSS1278-394KL_	390±10%	0.68	2.7	1.40	0.75	1.00
MSS1278-474KL_	470±10%	0.88	2.2	1.25	0.66	0.90
MSS1278-564KL_	560±10%	0.96	2.0	1.15	0.60	0.80
MSS1278-684KL_	680±10%	1.30	1.7	0.97	0.55	0.75
MSS1278-824KL_	820±10%	1.50	1.4	0.94	0.50	0.70
MSS1278-105KL_	1000±10%	1.70	1.3	0.87	0.48	0.68

- When ordering, please specify **packaging** code:

MSS1278-105KL **D**

**Packaging: D** = 13" machine-ready reel. EIA-481 embossed plastic tape (500 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 D instead.

- Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc on Agilent/HP 4284A LC meter or equivalent.
- SRF measured using Agilent/HP 4191A or equivalent.
- DC current at which the inductance drops 10% (typ) from its value without current.
- Average current for temperature rise from 25°C ambient.
- Operating temperature range -40°C to +85°C.
- Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

# Coilcraft®

Specifications subject to change without notice.

Please check our website for latest information. Document 322-1 Revised 01/27/06

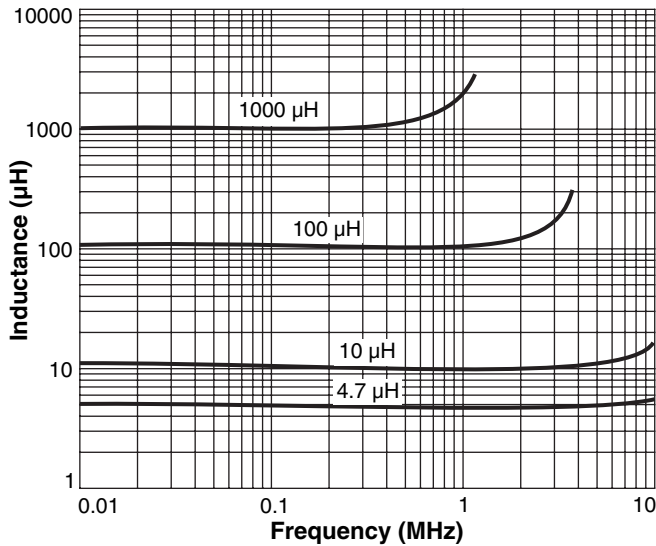
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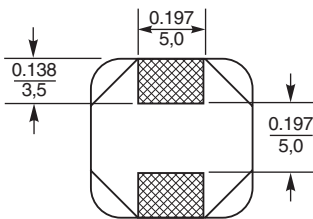
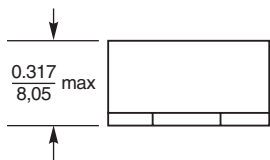
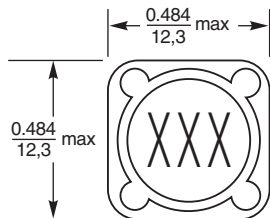
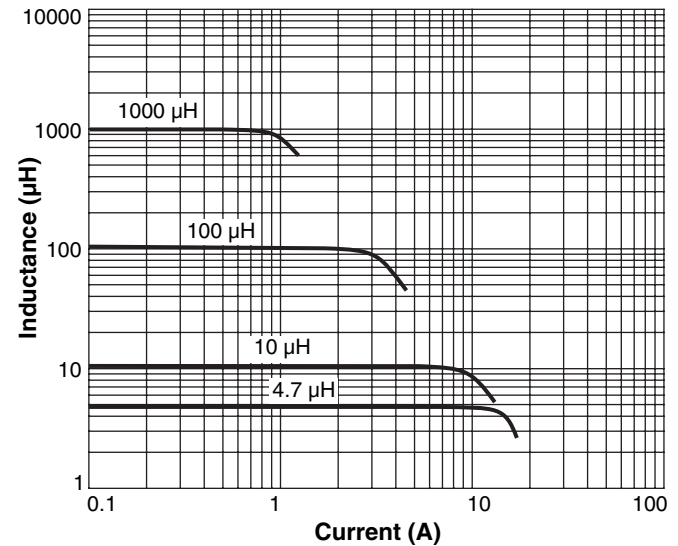


# SMT Power Inductors - MSS1278 Series

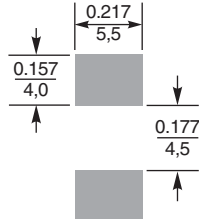
## Typical L vs Frequency



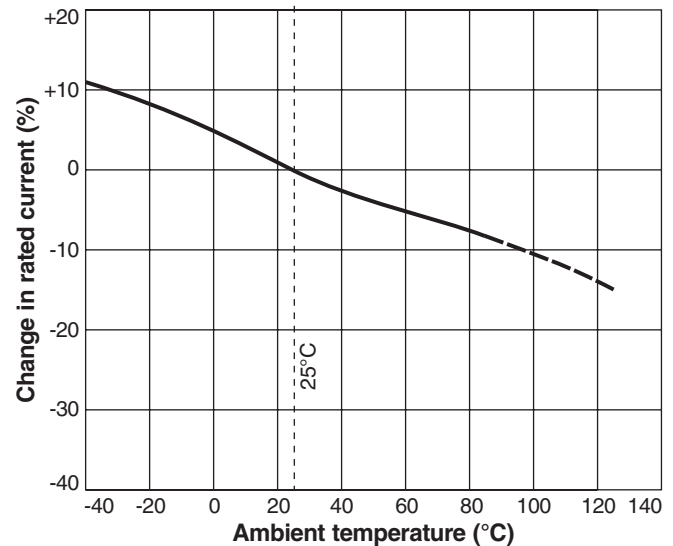
## Typical L vs Current



### Recommended Land Pattern



## Current Derating



**Weight:** 3.8 – 4.6 g  
**Terminations:** Nickel/tin over phos bronze  
**Tape and reel:** 500/13" reel 24 mm tape width  
 For packaging data see Tape and Reel Specifications section.



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