



# SMT Power Inductors – MSS1260



- 12.3 × 12.3 mm footprint; 6 mm high shielded inductors
- Low DCR and excellent current handling

**Designer's Kit C360** contains 3 each of all values.

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

**Terminations** RoHS compliant matte tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight:** 2.8 – 3.3 g

**Ambient temperature** –40°C to +85°C with I<sub>rms</sub> current, +85°C to +125°C with derated current

**Storage temperature** Component: –40°C to +125°C.  
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** 500/13" reel; Plastic tape: 24 mm wide, 0.35 mm thick, 16 mm pocket spacing, 6.3 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

Part number <sup>1</sup>	Inductance <sup>2</sup> (µH)	DCR <sup>3</sup> (mOhms)		SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS1260-102NL_	1.0 ±30%	5.8	6.5	100	19.1	21.4	22.7	6.00	8.00
MSS1260-152NL_	1.5 ±30%	8.8	9.8	80.0	15.0	16.6	17.6	6.00	7.50
MSS1260-222NL_	2.2 ±30%	11.5	12.8	55.0	11.7	13.0	13.9	5.50	7.00
MSS1260-332NL_	3.3 ±30%	12.6	14.0	42.0	10.4	11.7	12.5	5.00	7.00
MSS1260-472ML_	4.7 ±20%	13.9	15.5	33.0	9.22	10.1	10.8	4.50	7.00
MSS1260-562ML_	5.6 ±20%	14.9	16.6	30.0	7.86	9.02	9.74	4.00	6.40
MSS1260-682ML_	6.8 ±20%	16.6	18.5	27.0	7.40	8.26	8.80	3.80	5.90
MSS1260-822ML_	8.2 ±20%	20.2	22.5	26.0	7.10	7.96	8.50	3.40	4.80
MSS1260-103ML_	10 ±20%	21.5	23.9	22.0	6.18	6.92	7.40	3.00	4.00
MSS1260-123ML_	12 ±20%	24.5	27.3	20.0	5.18	5.94	6.42	2.80	3.70
MSS1260-153ML_	15 ±20%	30.7	34.2	18.0	4.80	5.40	5.78	2.60	3.50
MSS1260-183ML_	18 ±20%	35.4	39.4	16.0	4.58	5.22	5.62	2.50	3.30
MSS1260-223ML_	22 ±20%	36.6	40.7	15.0	4.06	4.64	4.96	2.30	3.10
MSS1260-273ML_	27 ±20%	51.3	57.0	13.0	3.52	3.96	4.28	2.10	2.90
MSS1260-333ML_	33 ±20%	54.9	61.0	12.4	3.22	3.74	4.02	2.00	2.70
MSS1260-393ML_	39 ±20%	58.0	64.5	12.0	3.08	3.56	3.80	1.90	2.60
MSS1260-473ML_	47 ±20%	80.1	89.0	11.6	2.66	3.04	3.30	1.85	2.50
MSS1260-563ML_	56 ±20%	82.5	91.7	10.5	2.54	2.96	3.14	1.75	2.40
MSS1260-683ML_	68 ±20%	94.5	105.0	10.0	2.40	2.70	2.94	1.70	2.30
MSS1260-823ML_	82 ±20%	131.6	146.3	8.6	2.16	2.46	2.64	1.60	2.20
MSS1260-104ML_	100 ±20%	141.8	157.6	7.8	1.88	2.16	2.32	1.50	2.10
MSS1260-124KL_	120 ±10%	193.3	214.8	6.8	1.70	1.92	2.10	1.38	1.85
MSS1260-154KL_	150 ±10%	215.4	239.4	6.4	1.58	1.80	1.98	1.20	1.66
MSS1260-184KL_	180 ±10%	254.2	282.5	6.1	1.40	1.60	1.72	1.14	1.58
MSS1260-224KL_	220 ±10%	314.1	349.0	5.5	1.28	1.44	1.56	1.00	1.42
MSS1260-274KL_	270 ±10%	368.8	409.8	4.3	1.10	1.26	1.38	0.90	1.45
MSS1260-334KL_	330 ±10%	481.3	534.8	4.0	1.00	1.14	1.24	0.84	1.16
MSS1260-394KL_	390 ±10%	517.5	575.0	3.6	0.93	1.06	1.15	0.78	1.08
MSS1260-474KL_	470 ±10%	721.2	801.4	3.0	0.87	0.99	1.06	0.70	0.96
MSS1260-564KL_	560 ±10%	773.1	859.0	2.8	0.81	0.92	1.00	0.64	0.88
MSS1260-684KL_	680 ±10%	867.6	964.0	2.6	0.74	0.85	0.92	0.58	0.80
MSS1260-824KL_	820 ±10%	1158	1287	2.5	0.66	0.76	0.81	0.53	0.73
MSS1260-105KL_	1000 ±10%	1273	1415	2.4	0.60	0.69	0.74	0.48	0.68

- Please specify **termination** and **packaging** codes:

**MSS1260-184K L D**

**Termination:** L = RoHS compliant matte tin over nickel over phos bronze.

Special order:

T = RoHS tin-silver-copper (95.5/4/0.5)  
or S = non-RoHS tin-lead (63/37).

**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 V<sub>rms</sub>, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
- DCR measured on a micro-ohmmeter and a Coilcraft CCF858 test fixture.
- SRF measured using Agilent/HP 4191A or equivalent.
- DC current at which the inductance drops the specified amount from its value without current.
- Current that causes the specified temperature rise from 25°C ambient.
- Electrical specifications at 25°C.  
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

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

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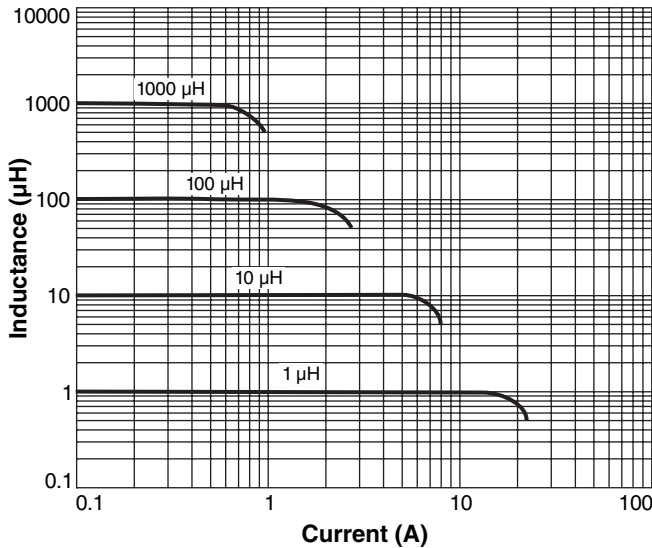
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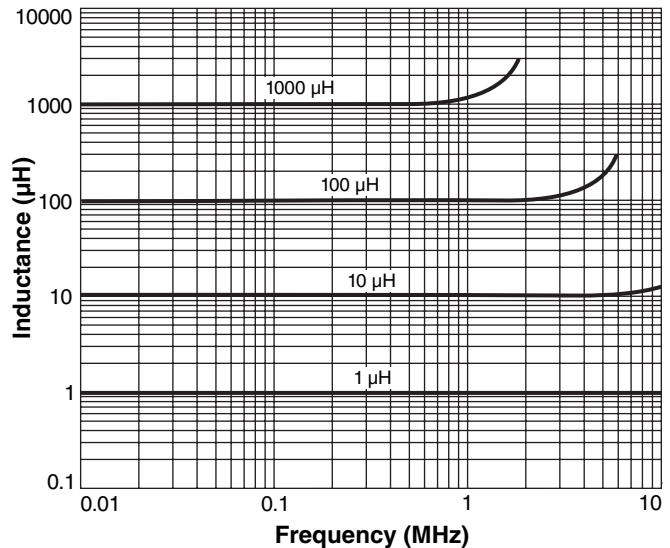


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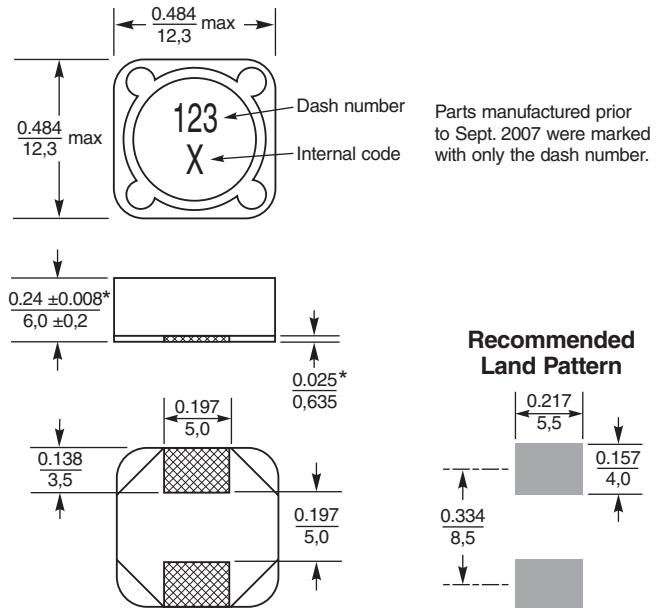
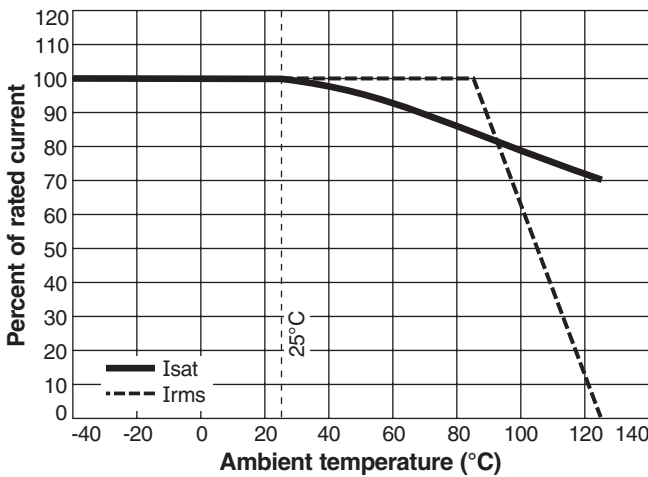
## Typical L vs Current



## Typical L vs Frequency



## Typical Current Derating



\* For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.012 inch (0,3 mm).

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



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

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