



# HIGH TEMPERATURE

# SMT Power Inductors – MSS1260T



- Designed for high ambient temperatures – 125°C
- Very low DCR, excellent current handling
- Magnetic shielding allows high density mounting.

**Designer's Kit C418** contains 3 each of all values

**Core material** Ferrite

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

**Weight:** 2.8 g – 3.3 g

**Ambient temperature** –40°C to +125°C with I<sub>rms</sub> current, +125°C to +165°C with derated current

**Storage temperature** Component: –40°C to +165°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, 6.6 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>			I <sub>rms</sub> (A) <sup>6</sup>	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS1260T-102NL_	1.0±30%	5.8	6.5	100	19.12	21.18	22.76	6.00	8.00
MSS1260T-152NL_	1.5±30%	8.8	9.8	80.0	14.44	16.40	17.64	5.30	7.60
MSS1260T-222NL_	2.2±30%	11.5	12.8	55.0	12.32	14.00	15.08	5.20	7.30
MSS1260T-332NL_	3.3±30%	12.6	14.0	42.0	10.88	12.22	13.12	5.00	7.00
MSS1260T-472ML_	4.7±20%	13.9	15.5	38.0	9.92	11.10	12.00	4.50	7.00
MSS1260T-562ML_	5.6±20%	14.9	16.6	30.0	8.54	9.60	10.38	4.00	6.40
MSS1260T-682ML_	6.8±20%	16.6	18.5	27.0	7.80	8.80	9.44	3.80	5.90
MSS1260T-822ML_	8.2±20%	20.2	22.5	26.0	6.44	7.38	7.98	3.40	4.80
MSS1260T-103ML_	10±20%	21.5	23.9	22.0	6.00	6.92	7.48	3.00	4.00
MSS1260T-123ML_	12±20%	24.5	27.3	20.0	5.68	6.56	7.08	2.80	3.70
MSS1260T-153ML_	15±20%	30.7	34.2	18.0	5.34	6.04	6.54	2.60	3.50
MSS1260T-183ML_	18±20%	35.4	39.4	16.0	4.82	5.54	6.00	2.50	3.30
MSS1260T-223ML_	22±20%	36.6	40.7	15.0	4.42	5.04	5.44	2.30	3.10
MSS1260T-273ML_	27±20%	51.3	57.0	13.0	3.78	4.32	4.68	2.10	2.90
MSS1260T-333ML_	33±20%	54.9	61.0	12.4	3.50	4.00	4.34	2.00	2.70
MSS1260T-393ML_	39±20%	58.0	64.5	12.0	3.32	3.80	4.14	1.90	2.60
MSS1260T-473ML_	47±20%	80.1	89.0	11.6	2.84	3.26	3.54	1.85	2.50
MSS1260T-563ML_	56±20%	82.5	91.7	10.5	2.64	3.04	3.28	1.75	2.40
MSS1260T-683ML_	68±20%	94.5	105.0	10.0	2.46	2.82	3.04	1.70	2.30
MSS1260T-823ML_	82±20%	131.6	146.3	8.6	2.24	2.54	2.74	1.60	2.20
MSS1260T-104ML_	100±20%	141.8	157.6	7.8	2.06	2.34	2.54	1.50	2.10
MSS1260T-124KL_	120±10%	193.3	214.8	6.8	1.84	2.08	2.28	1.38	1.85
MSS1260T-154KL_	150±10%	215.4	239.4	6.4	1.64	1.90	2.06	1.20	1.66
MSS1260T-184KL_	180±10%	254.2	282.5	6.1	1.46	1.70	1.84	1.14	1.58
MSS1260T-224KL_	220±10%	314.1	349.0	5.5	1.30	1.48	1.60	1.00	1.42
MSS1260T-274KL_	270±10%	368.8	409.8	4.3	1.18	1.38	1.48	0.90	1.45
MSS1260T-334KL_	330±10%	481.3	534.8	4.0	1.04	1.20	1.30	0.84	1.16
MSS1260T-394KL_	390±10%	517.5	575.0	3.6	1.00	1.16	1.28	0.78	1.08
MSS1260T-474KL_	470±10%	721.2	801.4	3.0	0.906	1.00	1.10	0.70	0.96
MSS1260T-564KL_	560±10%	773.1	859.0	2.8	0.872	0.980	1.02	0.64	0.88
MSS1260T-684KL_	680±10%	867.6	964.0	2.6	0.782	0.886	0.956	0.58	0.80
MSS1260T-824KL_	820±10%	1158	1287	2.5	0.692	0.784	0.854	0.53	0.73
MSS1260T-105KL_	1000±10%	1273	1415	2.4	0.588	0.672	0.726	0.48	0.68

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

MSS1260T-105K 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.

2. Inductance tested at 100 kHz, 0.1 V<sub>rms</sub>, 0 A<sub>dc</sub> using an Agilent/HP 4263B LCR meter or equivalent.
  3. DCR measured on a micro-ohmmeter and a Coilcraft CCF858 test fixture.
  4. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
  5. DC current at which the inductance drops the specified amount from its value without current.
  6. Current that causes the specified temperature rise from 25°C ambient.
  7. Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

## Coilcraft®

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

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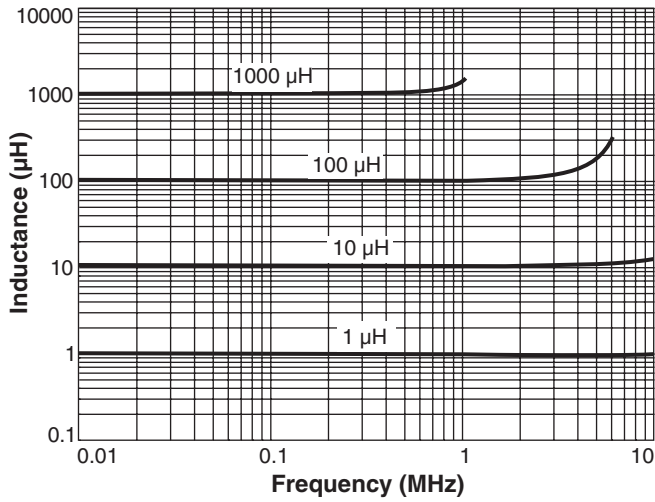
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



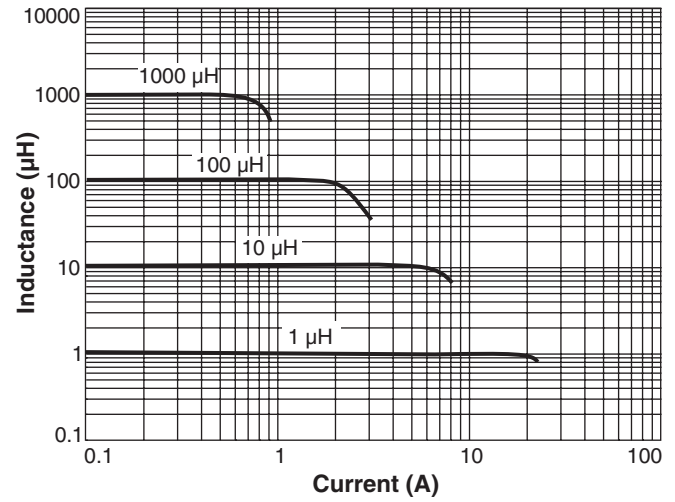
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## SMT Power Inductors – MSS1260T Series

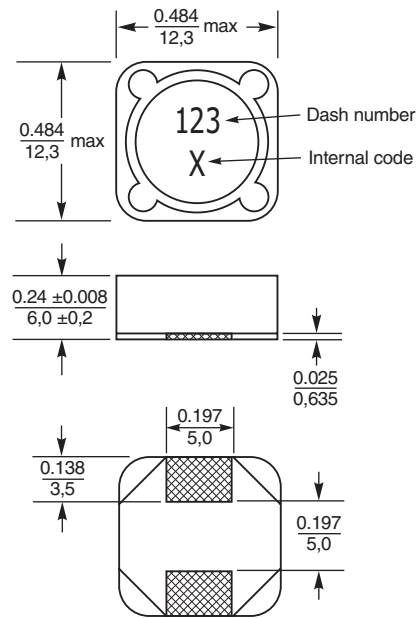
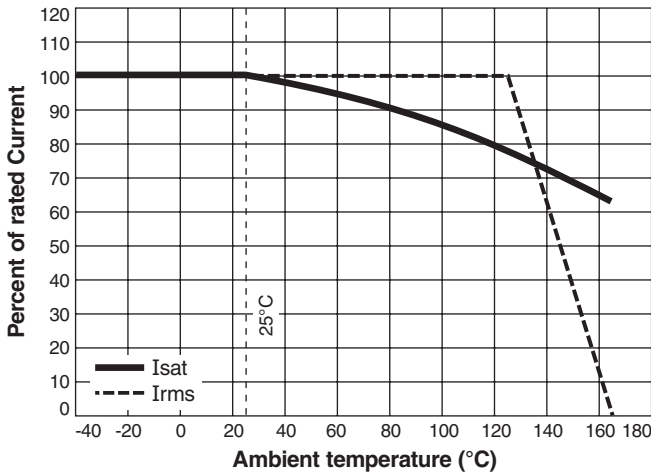
Typical L vs Frequency



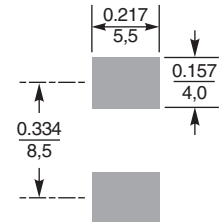
Typical L vs Current



Current Derating



Recommended Land Pattern



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



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