

**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 Irms current, +125°C to +165°C with derated current

**Storage temperature** Component: –40°C to +165°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** 500/13" reel; Plastic tape: 24 mm wide, 0.35 mm thick, 16 mm pocket spacing, 6.6 mm pocket depth

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf.

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
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%	17.0	20.0	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%	27.0	32.0	18.0	5.34	6.04	6.54	2.60	3.50
MSS1260T-183ML_	18 ±20%	30.0	33.0	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%	48.0	52.0	13.0	3.78	4.32	4.68	2.10	2.90
MSS1260T-333ML_	33 ±20%	54.0	57.0	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%	75.0	82.0	11.6	2.84	3.26	3.54	1.85	2.50
MSS1260T-563ML_	56 ±20%	85.0	89.0	10.5	2.64	3.04	3.28	1.75	2.40
MSS1260T-683ML_	68 ±20%	94.5	105	10.0	2.46	2.82	3.04	1.70	2.30
MSS1260T-823ML_	82 ±20%	120	129	8.6	2.24	2.54	2.74	1.60	2.20
MSS1260T-104ML_	100 ±20%	139	146	7.8	2.06	2.34	2.54	1.50	2.10
MSS1260T-124KL_	120 ±10%	193	195	6.8	1.84	2.08	2.28	1.38	1.85
MSS1260T-154KL_	150 ±10%	209	216	6.4	1.64	1.90	2.06	1.20	1.66
MSS1260T-184KL_	180 ±10%	234	246	6.1	1.46	1.70	1.84	1.14	1.58
MSS1260T-224KL_	220 ±10%	306	335	5.5	1.30	1.48	1.60	1.00	1.42
MSS1260T-274KL_	270 ±10%	349	355	4.3	1.18	1.38	1.48	0.90	1.45
MSS1260T-334KL_	330 ±10%	482	494	4.0	1.04	1.20	1.30	0.84	1.16
MSS1260T-394KL_	390 ±10%	515	533	3.6	1.00	1.16	1.28	0.78	1.08
MSS1260T-474KL_	470 ±10%	705	733	3.0	0.906	1.00	1.10	0.70	0.96
MSS1260T-564KL_	560 ±10%	776	800	2.8	0.872	0.980	1.02	0.64	0.88
MSS1260T-684KL_	680 ±10%	887	910	2.6	0.782	0.886	0.956	0.58	0.80
MSS1260T-824KL_	820 ±10%	1130	1152	2.5	0.692	0.784	0.854	0.53	0.73
MSS1260T-105KL_	1000 ±10%	1295	1335	2.4	0.588	0.672	0.726	0.48	0.68

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

**MSS1260T-105KLD**

**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 Vrms, 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 an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
  - 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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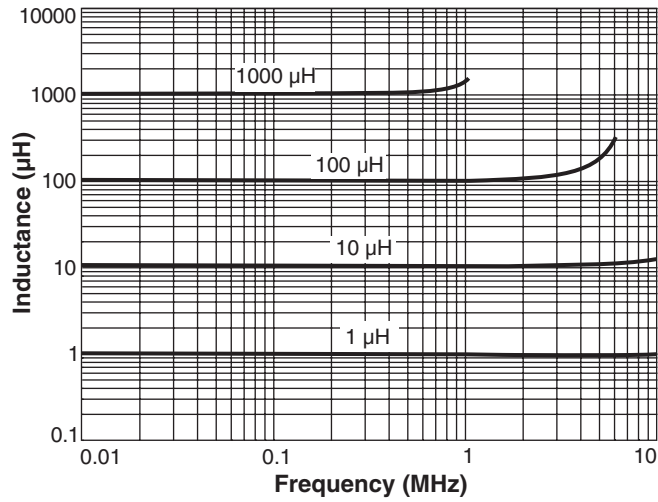
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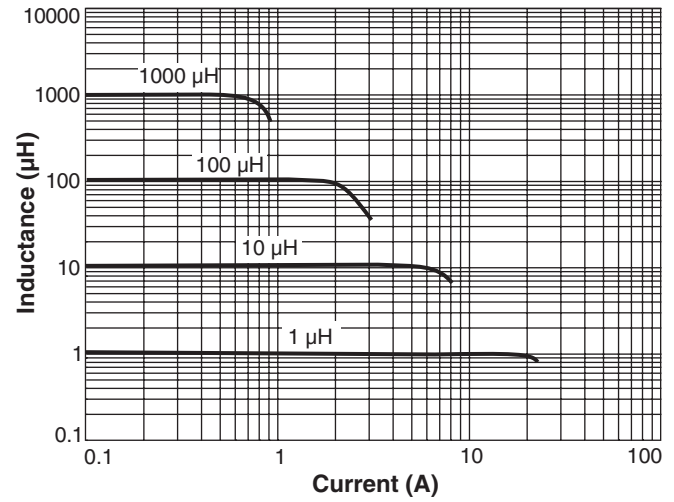
## SMT Power Inductors – MSS1260T Series



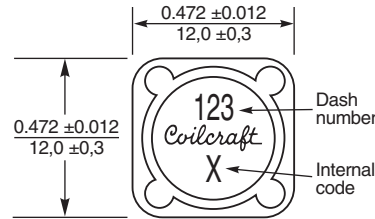
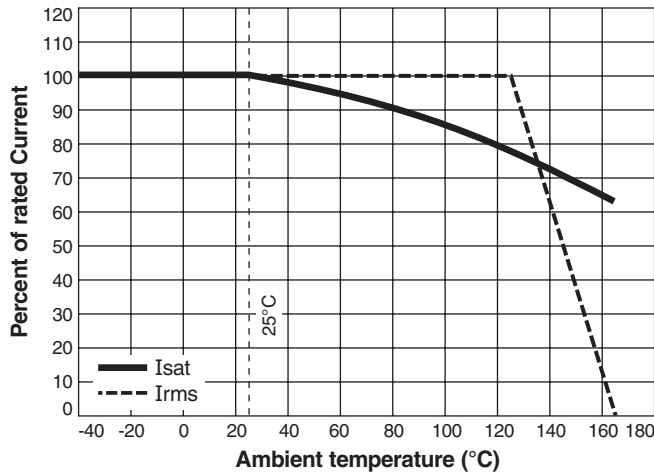
### Typical L vs Frequency



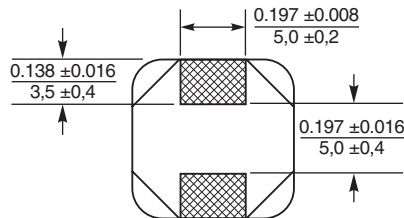
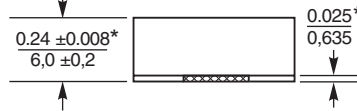
### Typical L vs Current



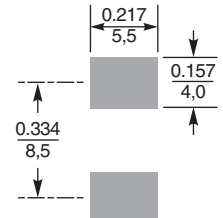
### Current Derating



Parts manufactured prior to August 2011 may have a different part marking.



### Recommended Land Pattern



\* 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  $\frac{\text{inches}}{\text{mm}}$



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