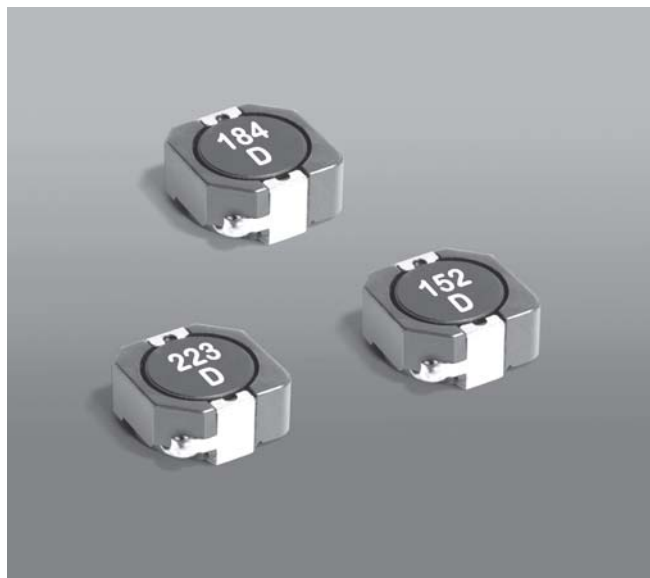


**NEW!**

# SMT Power Inductors – MSS1048



- 10 × 10.2 mm footprint; 4.8 mm high shielded inductors
- Very low DCR and excellent current handling

**Designer's Kit C409** contains 3 each of all values.

**Core material** Ferrite

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

**Weight:** 1.7 – 1.9 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 +85°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** 200/7" reel; 800/13" reel; Plastic tape: 24 mm wide, 0.35 mm thick, 16 mm pocket spacing, 5.1 mm pocket depth

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

Part number <sup>1</sup>	Inductance <sup>2</sup> (μH)	DCR max (mΩ)	SRF typ <sup>3</sup> (MHz)	Isat (A) <sup>4</sup>			Irms (A) <sup>5</sup>	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS1048-801NL	0.8 ±30%	4.3	180	9.60	12.0	14.1	8.19	12.0
MSS1048-152NL	1.5 ±30%	5.8	90	5.44	7.80	10.5	7.41	10.8
MSS1048-222NL	2.2 ±30%	7.2	70	4.92	6.62	8.40	6.63	9.78
MSS1048-332NL	3.3 ±30%	10.4	50	4.62	6.32	7.38	5.04	7.22
MSS1048-472NL	4.7 ±30%	12.3	38	4.36	5.62	6.46	4.90	6.90
MSS1048-682NL	6.8 ±30%	18.0	35	3.60	5.00	5.94	4.52	6.01
MSS1048-822NL	8.2 ±30%	20.0	28	3.14	4.14	4.84	4.38	5.71
MSS1048-103ML	10 ±20%	26.0	24	3.08	3.84	4.32	3.99	4.79
MSS1048-153ML	15 ±20%	41.0	20	2.46	3.06	3.44	3.51	4.26
MSS1048-223ML	22 ±20%	61.0	12	2.36	2.90	3.28	2.86	3.58
MSS1048-333ML	33 ±20%	84.0	11	1.66	2.14	2.42	2.12	2.80
MSS1048-473ML	47 ±20%	130	10	1.44	1.86	2.20	1.83	2.42
MSS1048-563ML	56 ±20%	149	10	1.36	1.70	1.90	1.71	2.28
MSS1048-683ML	68 ±20%	201	7.0	1.28	1.60	1.70	1.39	1.88
MSS1048-823ML	82 ±20%	227	6.0	1.08	1.44	1.64	1.23	1.67
MSS1048-104ML	100 ±20%	253	6.0	0.99	1.20	1.36	1.09	1.48
MSS1048-154KL	150 ±10%	370	5.0	0.79	1.02	1.16	0.97	1.33
MSS1048-184KL	180 ±10%	450	4.5	0.75	0.92	1.02	0.89	1.24
MSS1048-224KL	220 ±10%	500	4.5	0.67	0.84	0.95	0.85	1.18
MSS1048-334KL	330 ±10%	812	3.0	0.57	0.69	0.76	0.57	0.82
MSS1048-474KL	470 ±10%	1000	2.7	0.43	0.52	0.62	0.50	0.72

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

**MSS1048-334KL C**

**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 (200 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. Factory order only, not stocked (800 parts per full reel).

- Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
  - SRF measured using an Agilent/HP 4192A impedance analyzer 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.

# Coilcraft®

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

Document 462-1 Revised 06/09/09

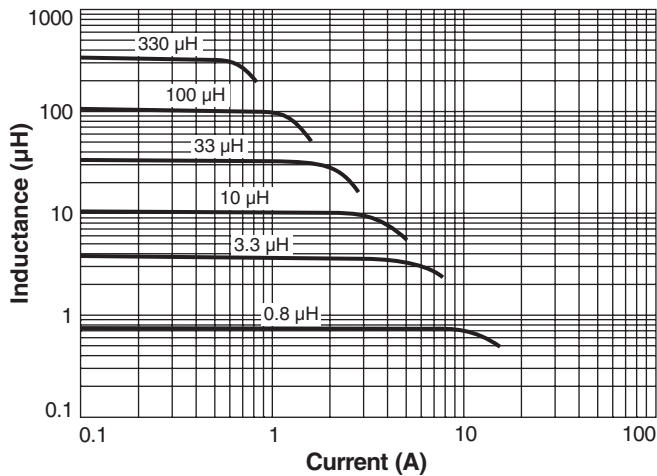
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

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

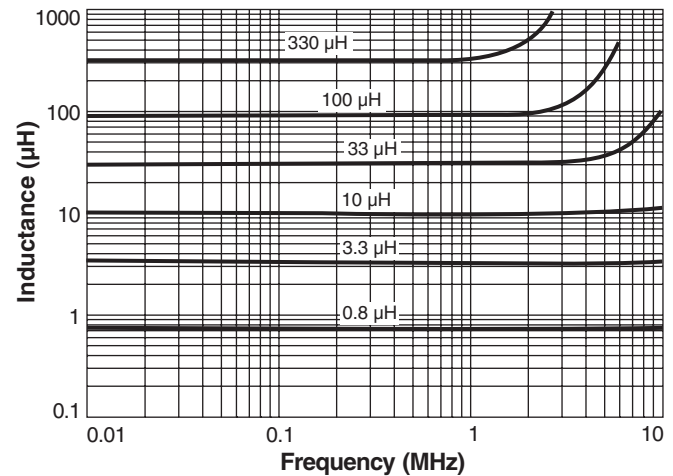
**NEW!**

# SMT Power Inductors – MSS1048

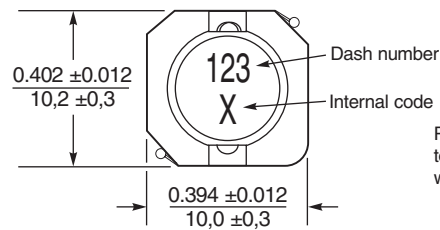
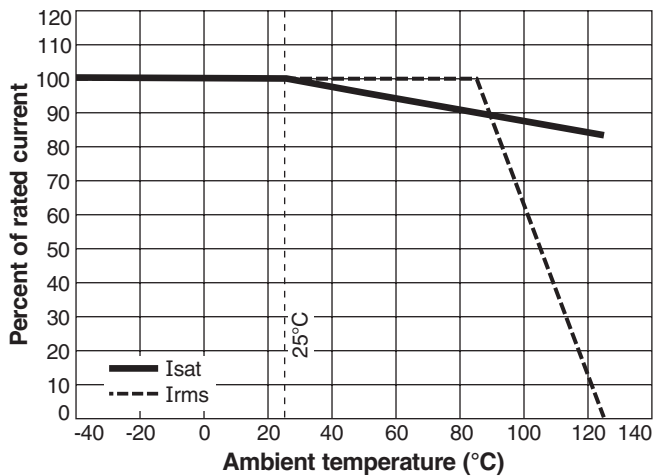
## Typical L vs Current



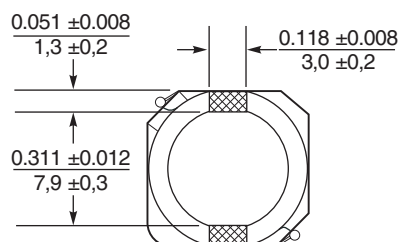
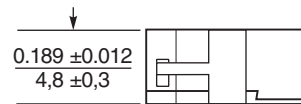
## Typical L vs Frequency



## Typical Current Derating

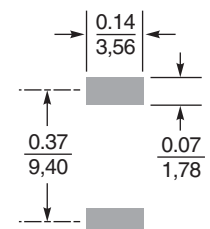


Parts manufactured prior to Sept. 2007 were marked with only the dash number.



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

## Recommended Land Pattern



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Please check our website for latest information.

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