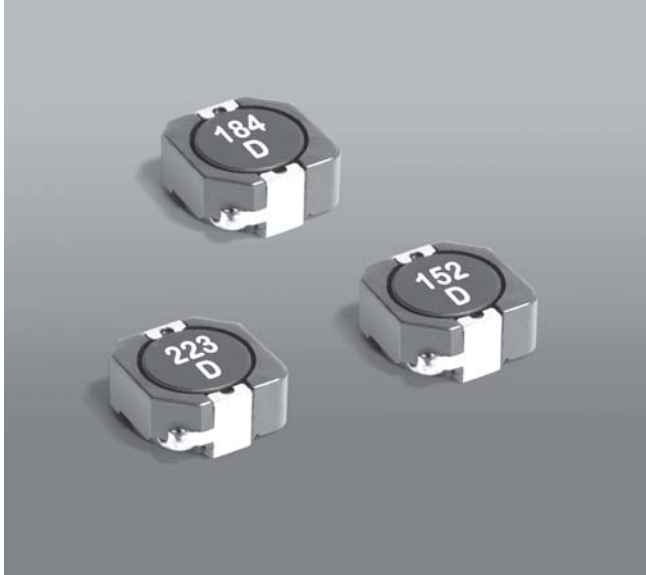


**NEW!**

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_{rms} 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 ¹	Inductance ² (μH)	DCR max (mΩ)	SRF typ ³ (MHz)	Isat (A) ⁴			Irms (A) ⁵	
				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:

MSS1048-334K L 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).

2. Inductance measured at 100 kHz, 0.1 V_{rms}, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
 3. SRF measured using an Agilent/HP 4192A impedance analyzer or equivalent.
 4. DC current at which the inductance drops the specified amount from its value without current.
 5. Current that causes the specified temperature rise from 25°C ambient.
 6. 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

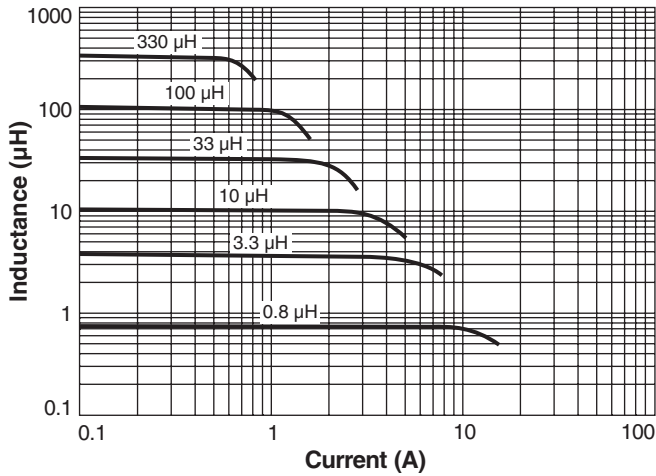
E-mail info@coilcraft.com Web <http://www.coilcraft.com>



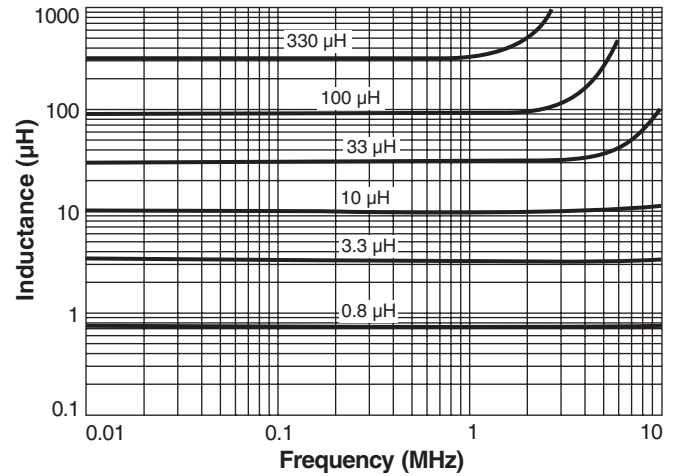
NEW!

SMT Power Inductors – MSS1048

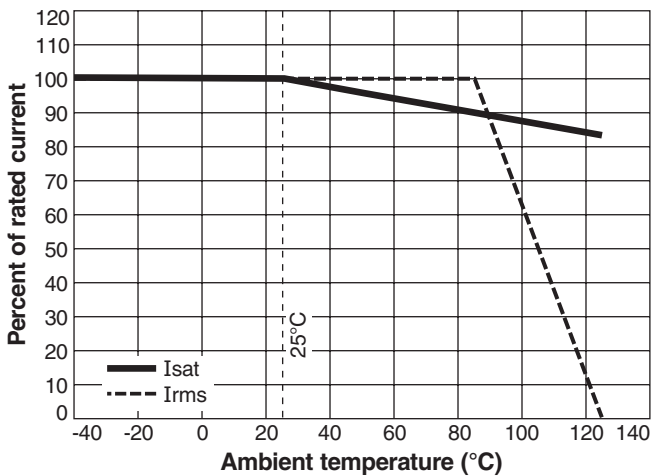
Typical L vs Current



Typical L vs Frequency



Typical Current Derating



$\frac{0.402 \pm 0.012}{10,2 \pm 0,3}$
 Dash number
 123
 Internal code
 X
 $\frac{0.394 \pm 0.012}{10,0 \pm 0,3}$
 $\frac{0.189 \pm 0.012}{4,8 \pm 0,3}$
 $\frac{0.051 \pm 0.008}{1,3 \pm 0,2}$
 $\frac{0.118 \pm 0.008}{3,0 \pm 0,2}$
 $\frac{0.311 \pm 0.012}{7,9 \pm 0,3}$

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

Recommended Land Pattern

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



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

Document 462-2 Revised 06/09/09

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

E-mail info@coilcraft.com Web <http://www.coilcraft.com>