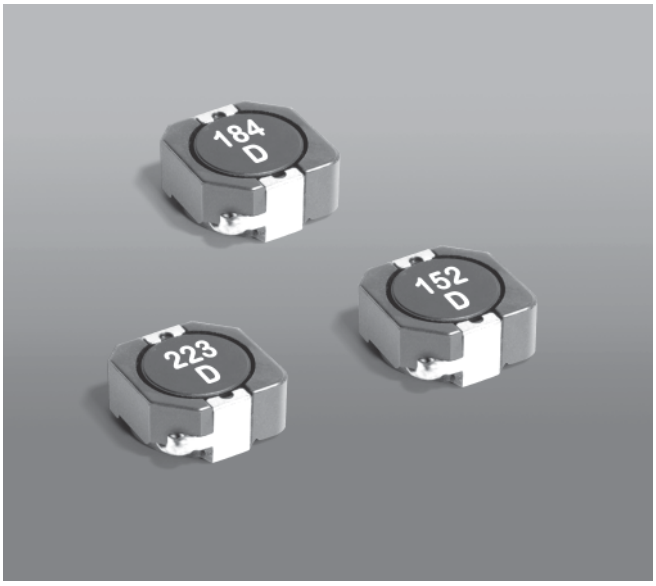
NEW!

25-05116

RoHS COMPLIANT

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 Irms 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)

Mean Time Between Failures (MTBF) 26,315,789 hours

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] 10% drop	Isat (A)[4] 20% drop	Isat (A)[4] 30% drop	Irms (A)[5] 20°C rise	Irms (A)[5] 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

MSS1048-222NLB

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).
2. Inductance measured at 100 kHz, 0.1 Vrms, 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.

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

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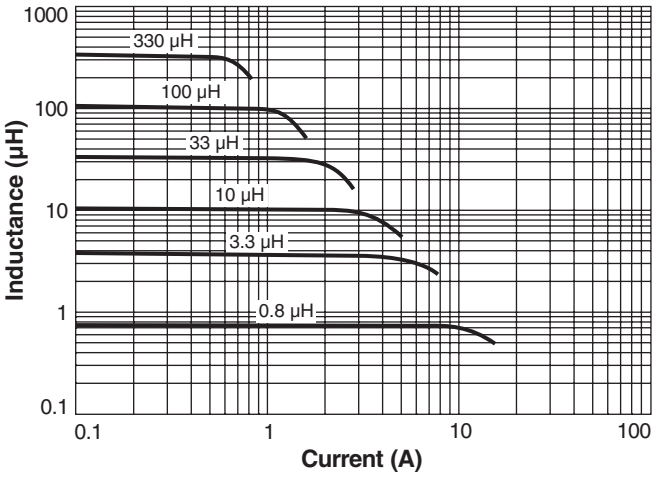
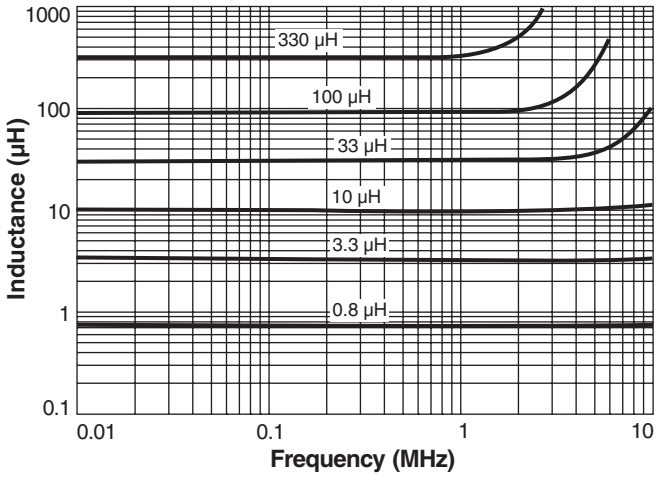
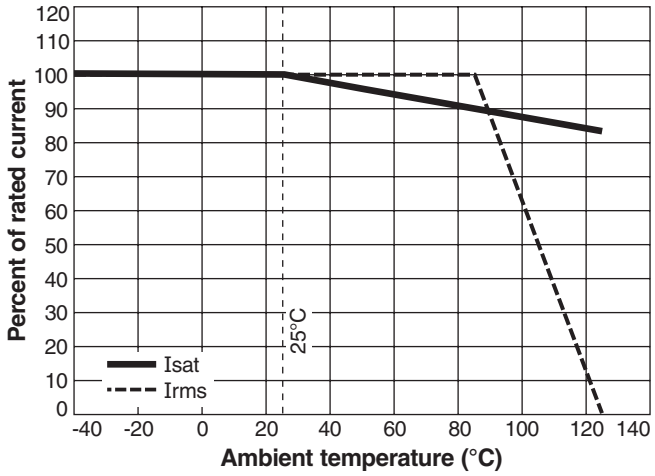
Typical L vs Current

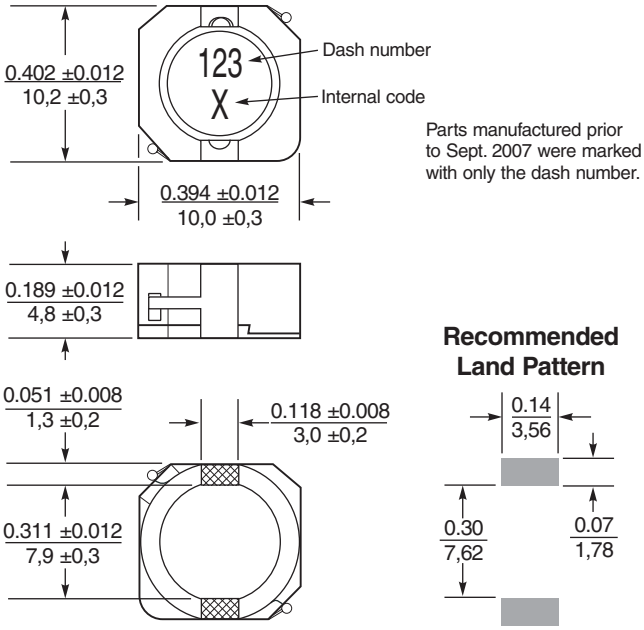


Typical L vs Frequency



Typical Current Derating





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

Recommended Land Pattern

Dimensions are in inches / mm

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