NEW!

Shielded Power Inductors–MSS1210

- 12.3 × 12.3 mm footprint; 10 mm high shielded inductors
- 26 inductance values from 10 µH to 10 mH
- Low DCR and excellent current handling

Core material Ferrite

Environment RoHS compliant, halogen free

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

Weight: 5.1 – 6.2 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 +125°C. T&R 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 300/13″ reel; Plastic tape: 24 mm wide, 0.5 mm thick, 20 mm pocket spacing, 10.3 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part number[1]	Inductance[2] (µH)	DCR (Ohms)[3] typ	DCR (Ohms)[3] max	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	Isat (A)[5] 20% drop	Isat (A)[5] 30% drop	Irms (A)[6] 20°C rise	Irms (A)[6] 40°C rise
MSS1210-103ME_	10 ±20%	0.014	0.016	15.0	9.6	11.5	12.5	7.3	10
MSS1210-153ME_	15 ±20%	0.019	0.022	12.0	8.3	9.9	10.7	6.4	8.7
MSS1210-223ME_	22 ±20%	0.026	0.030	9.5	6.8	8.1	8.8	4.9	6.7
MSS1210-333ME_	33 ±20%	0.034	0.039	7.5	5.4	6.4	6.9	4.4	5.9
MSS1210-473ME_	47 ±20%	0.051	0.058	6.0	4.5	5.4	5.8	3.4	4.6
MSS1210-683ME_	68 ±20%	0.074	0.084	4.5	3.8	4.5	4.9	3.2	4.3
MSS1210-104KE_	100 ±10%	0.114	0.130	3.6	3.1	3.7	4.0	2.5	3.4
MSS1210-154KE_	150 ±10%	0.176	0.20	2.9	2.6	3.1	3.4	1.8	2.5
MSS1210-184KE_	180 ±10%	0.194	0.220	2.8	2.3	2.8	3.0	1.7	2.4
MSS1210-224KE_	220 ±10%	0.216	0.245	2.7	2.1	2.5	2.8	1.6	2.1
MSS1210-334KE_	330 ±10%	0.317	0.360	1.8	1.7	2.1	2.2	1.2	1.7
MSS1210-474KE_	470 ±10%	0.475	0.540	1.6	1.4	1.7	1.8	1.0	1.4
MSS1210-684KE_	680 ±10%	0.594	0.675	1.4	1.2	1.4	1.6	0.98	1.3
MSS1210-105KE_	1000 ±10%	0.906	1.030	1.1	0.98	1.2	1.3	0.75	1.0
MSS1210-125KE_	1200 ±10%	1.21	1.38	1.0	0.91	1.1	1.2	0.61	0.84
MSS1210-155KE_	1500 ±10%	0.36	1.55	0.85	0.81	0.96	1.0	0.58	0.81
MSS1210-185KE_	1800 ±10%	1.54	1.75	0.85	0.73	0.87	0.95	0.57	0.79
MSS1210-225KE_	2200 ±10%	1.94	2.20	0.70	0.66	0.79	0.86	0.48	0.65
MSS1210-275KE_	2700 ±10%	2.33	2.65	0.65	0.59	0.71	0.77	0.45	0.62
MSS1210-335KE_	3300 ±10%	2.90	3.30	0.56	0.54	0.64	0.70	0.39	0.54
MSS1210-395KE_	3900 ±10%	3.30	3.75	0.54	0.50	0.60	0.64	0.37	0.51
MSS1210-475KE_	4700 ±10%	3.68	4.18	0.51	0.45	0.54	0.58	0.35	0.49
MSS1210-565KE_	5600 ±10%	4.15	4.72	0.45	0.41	0.49	0.54	0.34	0.48
MSS1210-685KE_	6800 ±10%	5.55	6.31	0.40	0.38	0.45	0.49	0.28	0.39
MSS1210-825KE_	8200 ±10%	6.20	7.05	0.38	0.35	0.41	0.45	0.26	0.35
MSS1210-106KE_	10000 ±10%	8.52	9.68	0.31	0.31	0.37	0.40	0.22	0.30

1. Specify **termination** and **packaging** codes:

MSS1210-105KED

Termination: **E** = RoHS compliant matte tin over nickel over phos bronze. Special order: **P** = RoHS tin-silver-copper (95.5/4/0.5) or **Q** = non-RoHS tin-lead (63/37).

Packaging: **D** = 13″ machine-ready reel. EIA-481 embossed plastic tape (300 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 Vrms, 0 Adc 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 Agilent/HP 4191A or equivalent.
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.

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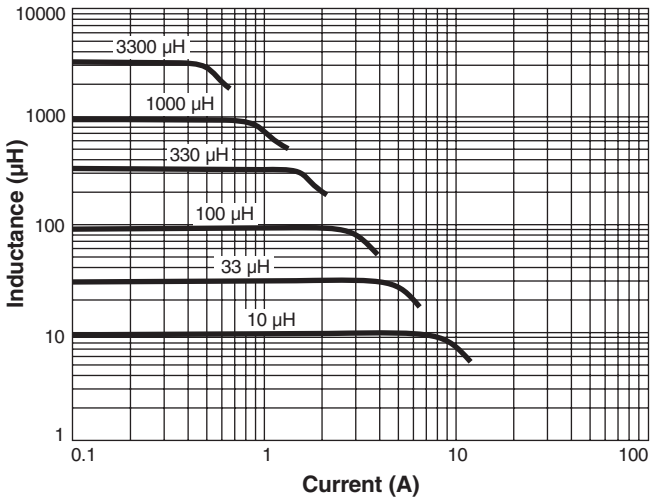
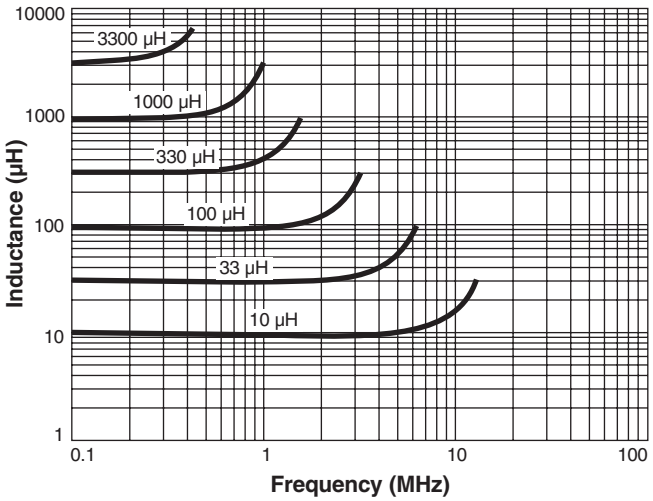
NEW!

Shielded Power Inductors – MSS1210

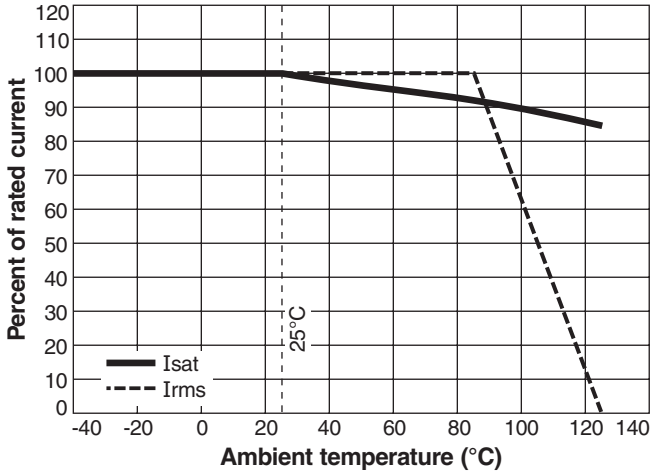
Typical L vs Current

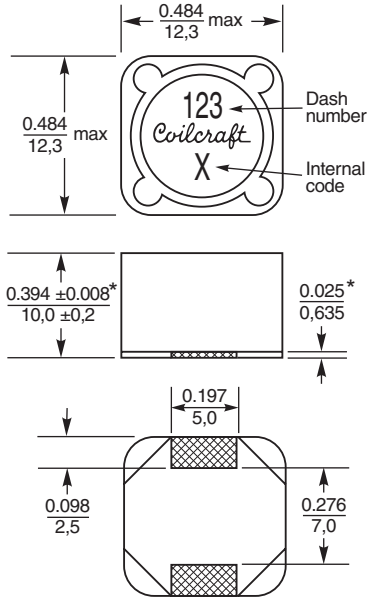


Typical L vs Frequency



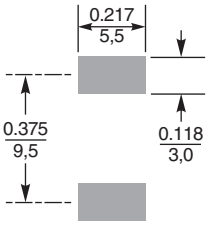
Typical Current Derating





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 inches / mm

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