

**NEW!**

Shielded Power Inductors—MSS1210



- 12.3 × 12.3 mm footprint; 10 mm high shielded inductors
- 27 inductance values from 10 μ H 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. 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 300/13" reel; Plastic tape: 24 mm wide, 0.5 mm thick, 20 mm pocket spacing, 10.3 mm pocket depth**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

Part number ¹	Inductance ² (μ H)	DCR (Ohms) ³		SRF typ ⁴ (MHz)	Isat (A) ⁵			Irms (A) ⁶	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS1210-103ME_	10 $\pm$ 20%	0.014	0.016	15.0	9.6	11.5	12.5	7.3	10
MSS1210-153ME_	15 $\pm$ 20%	0.019	0.022	12.0	8.3	9.9	10.7	6.4	8.7
MSS1210-223ME_	22 $\pm$ 20%	0.026	0.030	9.5	6.8	8.1	8.8	4.9	6.7
MSS1210-333ME_	33 $\pm$ 20%	0.033	0.039	7.5	5.4	6.4	6.9	4.4	5.9
MSS1210-473ME_	47 $\pm$ 20%	0.048	0.056	6.0	4.5	5.4	5.8	3.4	4.6
MSS1210-683ME_	68 $\pm$ 20%	0.068	0.080	4.5	3.8	4.5	4.9	3.2	4.3
MSS1210-104KE_	100 $\pm$ 10%	0.106	0.125	3.6	3.1	3.7	4.0	2.5	3.4
MSS1210-124KE_	120 $\pm$ 10%	0.115	0.135	3.3	2.9	3.4	3.7	2.4	3.3
MSS1210-154KE_	150 $\pm$ 10%	0.157	0.185	2.9	2.6	3.1	3.4	1.8	2.5
MSS1210-184KE_	180 $\pm$ 10%	0.173	0.203	2.8	2.3	2.8	3.0	1.7	2.4
MSS1210-224KE_	220 $\pm$ 10%	0.191	0.225	2.7	2.1	2.5	2.8	1.6	2.1
MSS1210-334KE_	330 $\pm$ 10%	0.289	0.340	1.8	1.7	2.1	2.2	1.2	1.7
MSS1210-474KE_	470 $\pm$ 10%	0.434	0.510	1.6	1.4	1.7	1.8	1.0	1.4
MSS1210-684KE_	680 $\pm$ 10%	0.536	0.630	1.4	1.2	1.4	1.6	0.98	1.3
MSS1210-105KE_	1000 $\pm$ 10%	0.816	0.960	1.1	0.98	1.2	1.3	0.75	1.0
MSS1210-125KE_	1200 $\pm$ 10%	1.07	1.26	1.0	0.91	1.1	1.2	0.61	0.84
MSS1210-155KE_	1500 $\pm$ 10%	1.23	1.45	0.85	0.81	0.96	1.0	0.58	0.81
MSS1210-185KE_	1800 $\pm$ 10%	1.39	1.63	0.85	0.73	0.87	0.95	0.57	0.79
MSS1210-225KE_	2200 $\pm$ 10%	1.82	2.14	0.70	0.66	0.79	0.86	0.48	0.65
MSS1210-275KE_	2700 $\pm$ 10%	2.02	2.38	0.65	0.59	0.71	0.77	0.45	0.62
MSS1210-335KE_	3300 $\pm$ 10%	2.69	3.17	0.56	0.54	0.64	0.70	0.39	0.54
MSS1210-395KE_	3900 $\pm$ 10%	2.98	3.50	0.54	0.50	0.60	0.64	0.37	0.51
MSS1210-475KE_	4700 $\pm$ 10%	3.34	3.93	0.51	0.45	0.54	0.58	0.35	0.49
MSS1210-565KE_	5600 $\pm$ 10%	3.71	4.37	0.45	0.41	0.49	0.54	0.34	0.48
MSS1210-685KE_	6800 $\pm$ 10%	4.97	5.85	0.40	0.38	0.45	0.49	0.28	0.39
MSS1210-825KE_	8200 $\pm$ 10%	5.51	6.48	0.38	0.35	0.41	0.45	0.26	0.35
MSS1210-106KE_	10000 $\pm$ 10%	7.39	8.69	0.31	0.31	0.37	0.40	0.22	0.30

- 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.

- 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 Agilent/HP 4191A 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.



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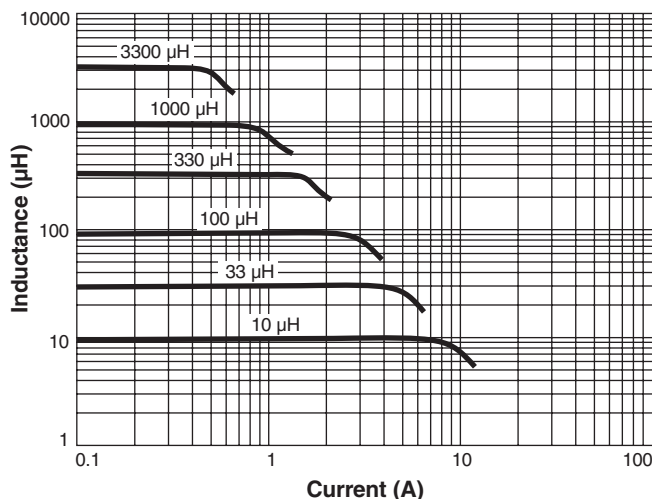
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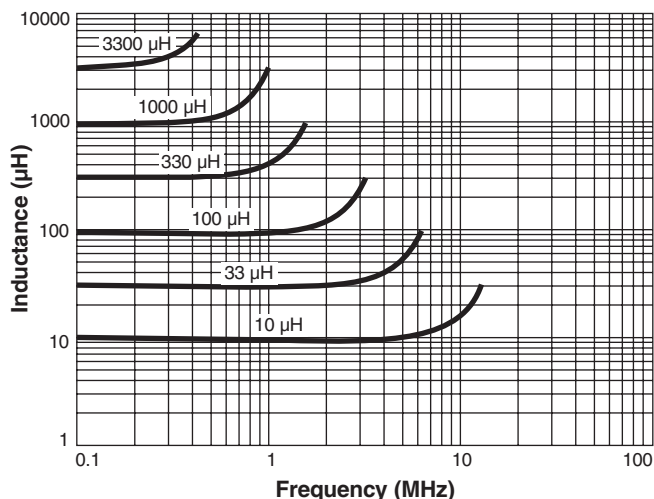
NEW!

Shielded Power Inductors – MSS1210

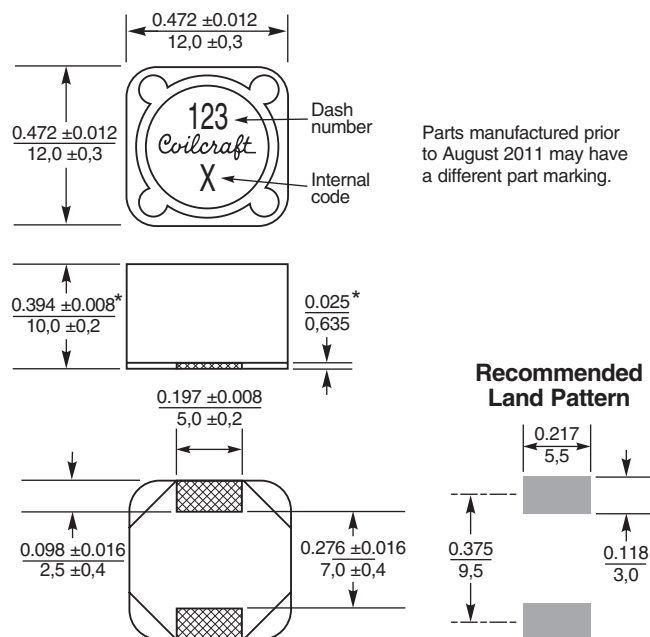
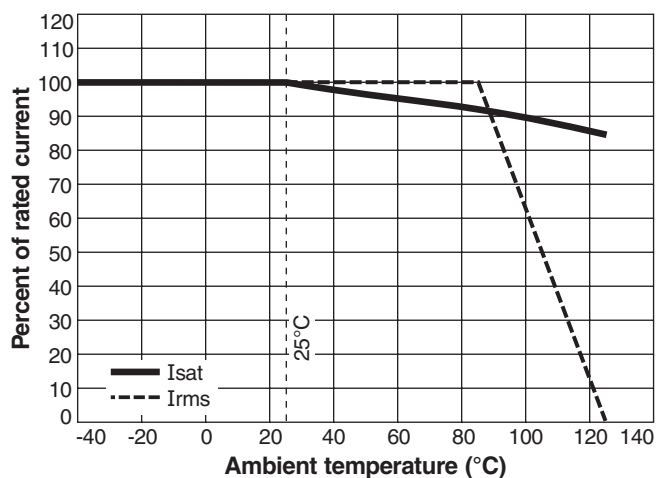
Typical L vs Current



Typical L vs Frequency



Typical Current Derating



* 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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