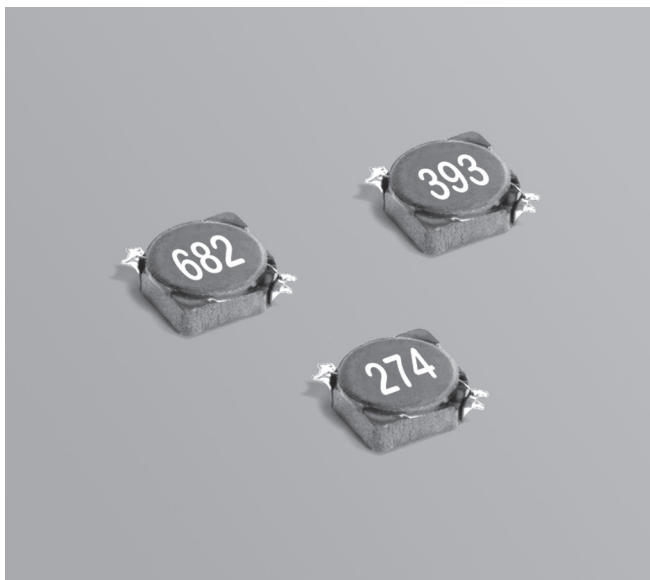




Shielded Power Inductors – MSS5121



- Low profile shielded power inductors
- Low DCR, excellent current handling and low cost

Designer's Kit C411 contains 3 of each value

Core material Ferrite

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

Weight 141 – 147 mg

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 600/7" reel, 2500/13" reel; Plastic tape: 12 mm wide, 0.35 mm thick, 8 mm pocket spacing, 3.25 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part number ¹	Inductance ² ±20% (µH)	DCR max (Ohms)	SRF typ ³ (MHz)	Isat (A) ⁴			Irms (A) ⁵	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS5121-222ML_	2.2	0.050	120.0	1.86	2.10	2.30	2.1	2.9
MSS5121-332ML_	3.3	0.070	90.0	1.62	1.84	2.00	1.7	2.3
MSS5121-472ML_	4.7	0.095	80.0	1.38	1.54	1.66	1.4	1.9
MSS5121-562ML_	5.6	0.100	73.0	1.28	1.42	1.54	1.3	1.8
MSS5121-682ML_	6.8	0.110	65.0	1.10	1.28	1.38	1.2	1.6
MSS5121-822ML_	8.2	0.135	55.0	1.06	1.22	1.32	1.1	1.5
MSS5121-103ML_	10	0.160	47.0	0.98	1.08	1.18	0.99	1.3
MSS5121-123ML_	12	0.190	41.0	0.87	0.99	1.05	0.91	1.2
MSS5121-153ML_	15	0.280	37.0	0.76	0.85	0.90	0.82	1.1
MSS5121-183ML_	18	0.300	35.0	0.71	0.81	0.87	0.75	1.0
MSS5121-223ML_	22	0.330	32.0	0.68	0.77	0.82	0.71	0.97
MSS5121-273ML_	27	0.420	27.0	0.61	0.69	0.74	0.63	0.85
MSS5121-333ML_	33	0.480	25.0	0.58	0.64	0.67	0.56	0.76
MSS5121-393ML_	39	0.530	23.0	0.48	0.54	0.58	0.55	0.73
MSS5121-473ML_	47	0.750	22.0	0.44	0.51	0.54	0.46	0.63
MSS5121-563ML_	56	0.860	19.0	0.40	0.46	0.49	0.44	0.60
MSS5121-683ML_	68	1.00	18.0	0.37	0.42	0.46	0.41	0.56
MSS5121-823ML_	82	1.20	15.0	0.35	0.40	0.42	0.35	0.47
MSS5121-104ML_	100	1.40	13.5	0.28	0.32	0.35	0.33	0.44
MSS5121-124ML_	120	1.60	12.0	0.26	0.30	0.32	0.31	0.42
MSS5121-154ML_	150	2.10	9.0	0.26	0.29	0.31	0.29	0.38
MSS5121-184ML_	180	2.31	8.5	0.21	0.25	0.27	0.25	0.34
MSS5121-224ML_	220	3.10	7.5	0.21	0.24	0.25	0.22	0.29
MSS5121-274ML_	270	3.50	7.0	0.18	0.20	0.22	0.20	0.27
MSS5121-334ML_	330	4.00	6.5	0.17	0.19	0.20	0.19	0.26
MSS5121-394ML_	390	5.00	5.8	0.15	0.17	0.19	0.15	0.21

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

MSS5121-394MLC

Termination: L = RoHS compliant gold over nickel over phos bronze

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 (600 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 (2500 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using Coilcraft SMD-A fixture in an Agilent/HP 4284A impedance analyzer.

3. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.

4. DC current at which the inductance drops the specified amount from its value without current.

5. Current that causes the specified temperature rise for 25°C ambient.

6. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com

UK +44-1236-730595 sales@coilcraft-europe.com

Taiwan +886-2-2264 3646 sales@coilcraft.com.tw

China +86-21-6218 8074 sales@coilcraft.com.cn

Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 495-1 Revised 12/09/11

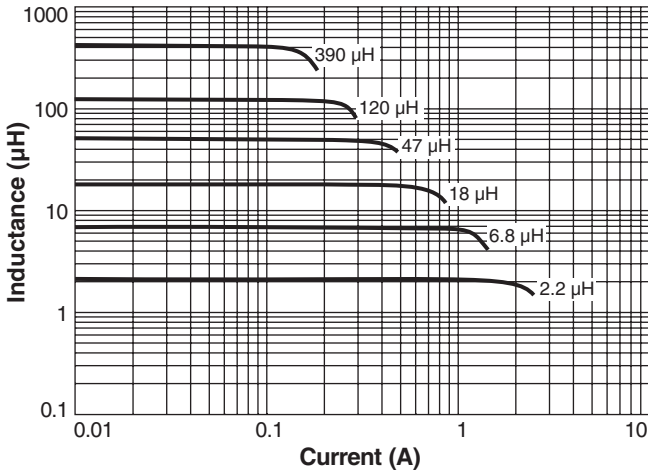
© Coilcraft Inc. 2012

This product may not be used in medical of high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.

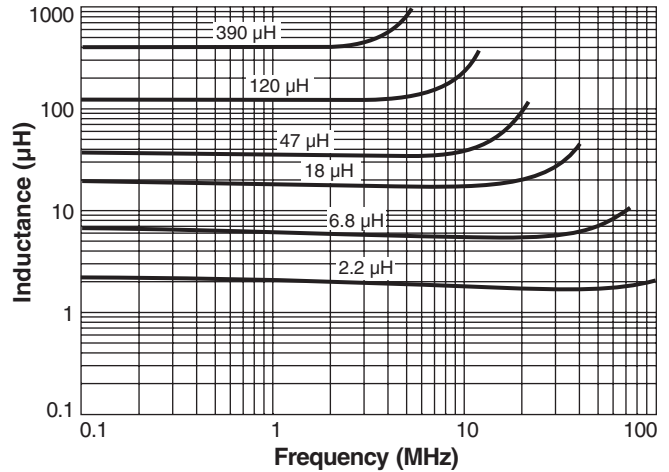


Shielded Power Inductors – MSS5121 Series

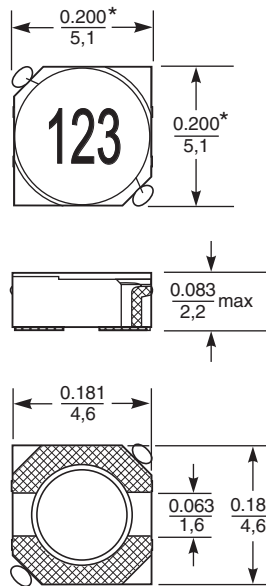
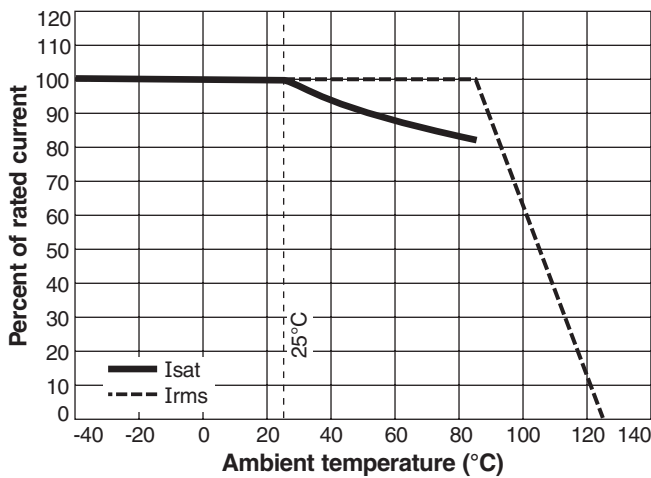
Typical L vs Current



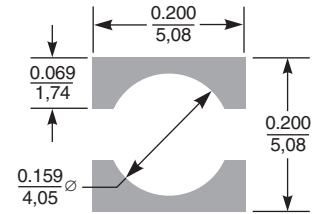
Typical L vs Frequency



Current Derating



*Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.035 in / 0,9 mm.



Recommended Land Pattern

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