



Shielded Power Inductors – MSS5131



- 5.1 × 5.1 mm footprint; 3.1mm high shielded inductors
- Low DCR and excellent current handling

Designer's Kit C362 contains 3 of each value

Core material Ferrite

Core and winding loss See www.coilcraft.com/coreloss

Terminations RoHS compliant matte tin over nickel over phos bronze (current production) or gold over nickel over phos bronze (prior production). Other terminations available at additional cost.

Weight 0.20 – 0.24 g

Ambient temperature –40°C to +85°C with (40°C rise) Irms current.

Maximum part temperature +125°C (ambient + temp rise). **Derating.**

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)

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 Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

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
MSS5131-222ML	2.2	0.020	65.0	1.76	2.08	2.30	2.00	3.30
MSS5131-332ML	3.3	0.028	60.0	1.33	1.58	1.73	1.60	2.90
MSS5131-472ML	4.7	0.038	48.0	1.08	1.32	1.42	1.40	2.50
MSS5131-562ML	5.6	0.042	44.0	1.00	1.20	1.30	1.30	2.30
MSS5131-682ML	6.8	0.050	42.0	0.98	1.14	1.24	1.20	2.16
MSS5131-822ML	8.2	0.058	40.0	0.90	1.04	1.18	1.10	2.00
MSS5131-103ML	10	0.070	38.0	0.85	0.98	1.13	1.00	1.90
MSS5131-123ML	12	0.080	35.0	0.72	0.85	0.94	0.97	1.60
MSS5131-153ML	15	0.100	32.0	0.67	0.78	0.86	0.94	1.50
MSS5131-183ML	18	0.120	26.0	0.61	0.72	0.79	0.89	1.40
MSS5131-223ML	22	0.145	22.0	0.54	0.64	0.70	0.87	1.30
MSS5131-273ML	27	0.161	19.0	0.48	0.56	0.62	0.85	1.20
MSS5131-333ML	33	0.200	18.0	0.44	0.52	0.58	0.80	1.10
MSS5131-393ML	39	0.215	17.0	0.42	0.50	0.55	0.74	1.00
MSS5131-473ML	47	0.270	16.0	0.38	0.46	0.51	0.71	0.95
MSS5131-563ML	56	0.280	15.0	0.34	0.42	0.47	0.70	0.90
MSS5131-683ML	68	0.368	12.5	0.31	0.38	0.42	0.66	0.85
MSS5131-823ML	82	0.420	12.0	0.27	0.32	0.35	0.62	0.80
MSS5131-104ML	100	0.580	11.5	0.26	0.30	0.33	0.55	0.69
MSS5131-124ML	120	0.610	11.0	0.23	0.27	0.30	0.51	0.62
MSS5131-154ML	150	0.820	10.0	0.21	0.26	0.28	0.47	0.58
MSS5131-184ML	180	1.00	9.0	0.19	0.23	0.25	0.43	0.54
MSS5131-224ML	220	1.10	8.0	0.18	0.21	0.23	0.39	0.50
MSS5131-274ML	270	1.43	7.5	0.15	0.18	0.20	0.35	0.45
MSS5131-334ML	330	1.58	6.8	0.13	0.17	0.19	0.32	0.42
MSS5131-394ML	390	1.80	5.4	0.12	0.15	0.16	0.30	0.38

SPICE models
ON OUR WEB SITE



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

MSS5131-394MLC

Termination: L = RoHS compliant matte tin over nickel over phos bronze (current production) or gold over nickel over phos bronze (prior production).

Special order:

T = RoHS tin-silver-copper (95.5/4/0.5) over gold over nickel over phos bronze or **S** = non-RoHS tin-lead (63/37) over gold over nickel over phos bronze.

Packaging: C = 7" machine-ready reel EIA-481 embossed plastic tape (600 per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

D = 13" machine-ready reel EIA-481 embossed plastic tape. Factory order only, not stocked (2500 per reel per full reel).

B = Less than full reel Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
 3. SRF measured using Agilent/HP 4191A or equivalent.
 4. DC current at 25°C that causes the specified inductance drop from its value without current. [Click for temperature derating information.](#)
 5. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. [Click for temperature derating information.](#)
 6. Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

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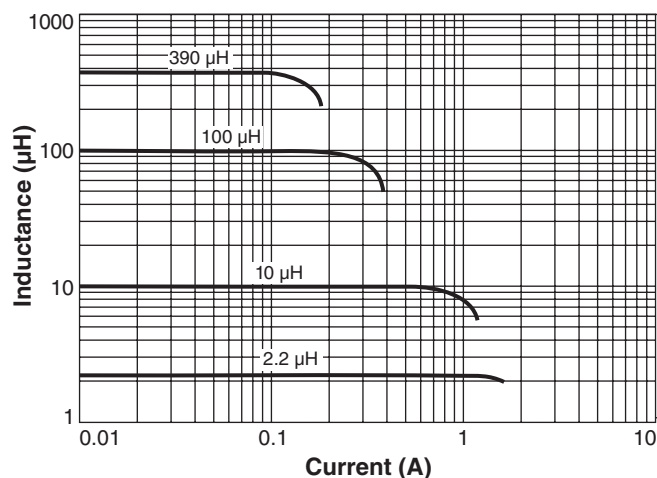
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

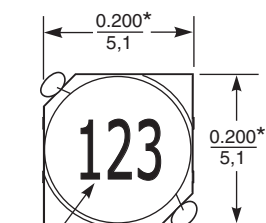
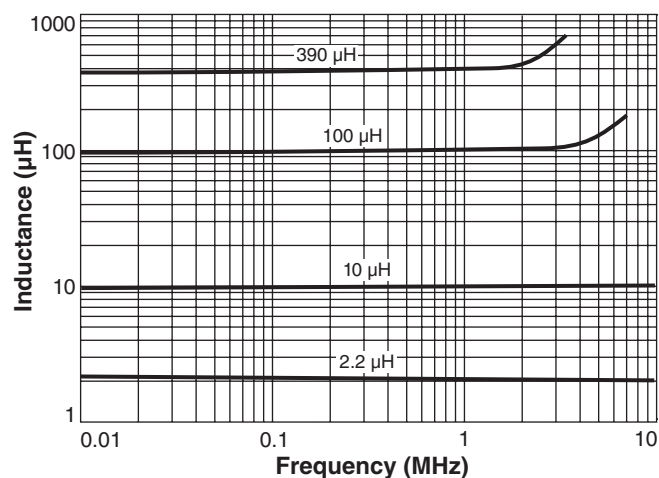


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Typical L vs Current



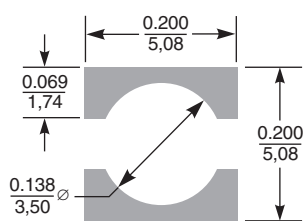
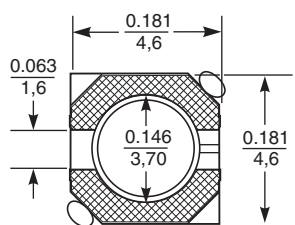
Typical L vs Frequency



Dash number



*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 $\frac{\text{inches}}{\text{mm}}$