



Shielded Power Inductors – MSS5131H



- 5.1 × 5.1 mm footprint; 3.1 mm high shielded inductors
- Low DCR and excellent current handling
- AEC-Q200 Grade 3 (–40°C to +85°C)

Core material Ferrite

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

Environmental RoHS compliant, halogen free

Terminations RoHS compliant matte tin over nickel over phos bronze.

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

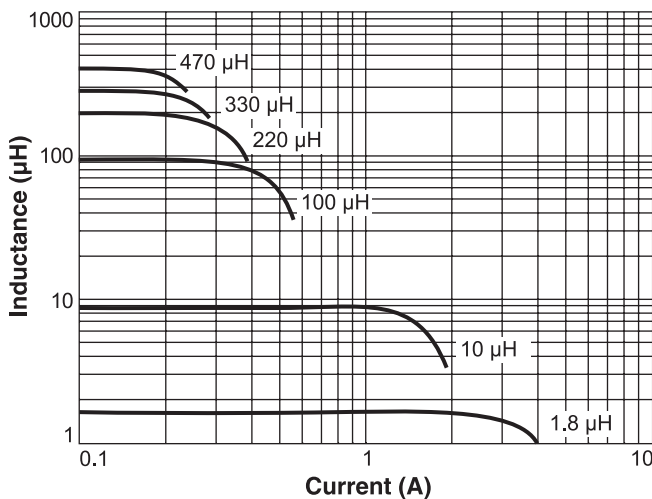
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

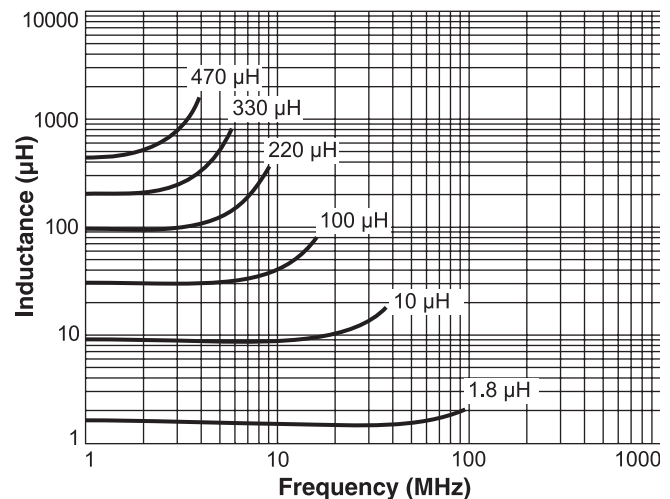
Packaging 600/7" reel, 2500/13" reel; Plastic tape: 12 mm wide, 0.35 mm thick, 8 mm pocket spacing, 3.25 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see [Doc787_PCB_Washing.pdf](#).

Typical L vs Current



Typical L vs Frequency





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Part number ¹	Inductance ² ±20% (µH)	DCR (Ohms)		SRF typ ³ (MHz)	Isat (A) ⁴			Irms (A) ⁵	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS5131H-182ME_	1.8	0.018	0.021	118	3.00	3.40	3.70	1.40	2.00
MSS5131H-332ME_	3.3	0.029	0.033	80	2.20	2.55	2.80	1.30	1.80
MSS5131H-472ME_	4.7	0.040	0.046	57	1.80	2.05	2.20	1.20	1.80
MSS5131H-562ME_	5.6	0.045	0.052	51	1.70	1.95	2.15	1.10	1.75
MSS5131H-622ME_	6.2	0.048	0.055	47	1.60	1.85	2.00	1.10	1.70
MSS5131H-822ME_	8.2	0.070	0.081	47	1.40	1.60	1.75	1.10	1.70
MSS5131H-103ME_	10	0.078	0.090	41	1.20	1.40	1.55	1.10	1.60
MSS5131H-123ME_	12	0.098	0.113	39	1.10	1.30	1.40	1.10	1.50
MSS5131H-153ME_	15	0.115	0.132	31	1.00	1.15	1.25	1.00	1.40
MSS5131H-183ME_	18	0.145	0.167	27	0.95	1.05	1.15	0.9	1.20
MSS5131H-223ME_	22	0.175	0.201	23	0.85	1.00	1.05	0.9	1.20
MSS5131H-273ME_	27	0.185	0.213	21	0.75	0.85	0.92	0.9	1.20
MSS5131H-333ME_	33	0.200	0.230	18	0.67	0.76	0.82	0.85	1.10
MSS5131H-393ME_	39	0.275	0.316	17	0.63	0.72	0.78	0.80	1.00
MSS5131H-473ME_	47	0.305	0.351	14	0.56	0.63	0.68	0.74	1.00
MSS5131H-563ME_	56	0.340	0.391	14	0.54	0.61	0.66	0.68	0.94
MSS5131H-683ME_	68	0.445	0.512	11	0.49	0.55	0.60	0.63	0.84
MSS5131H-823ME_	82	0.485	0.558	10	0.44	0.50	0.54	0.58	0.80
MSS5131H-104ME_	100	0.660	0.759	9.0	0.38	0.43	0.46	0.50	0.67
MSS5131H-124ME_	120	0.720	0.828	8.6	0.34	0.39	0.42	0.47	0.64
MSS5131H-154ME_	150	0.990	1.14	7.1	0.33	0.37	0.40	0.41	0.56
MSS5131H-184ME_	180	1.09	1.25	6.6	0.31	0.35	0.37	0.38	0.53
MSS5131H-224ME_	220	1.25	1.44	5.9	0.27	0.31	0.34	0.36	0.50
MSS5131H-274ME_	270	1.70	1.96	5.0	0.24	0.28	0.30	0.31	0.42
MSS5131H-334ME_	330	1.88	2.16	4.8	0.22	0.25	0.27	0.30	0.42
MSS5131H-394ME_	390	2.10	2.42	4.4	0.20	0.23	0.25	0.28	0.37
MSS5131H-474ME_	470	2.35	2.70	4.0	0.19	0.22	0.23	0.27	0.35

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

MSS5131H-474MEC

Termination: **E** = RoHS compliant matte tin over nickel over phos bronze.

Special order:

Q = RoHS tin-silver-copper (95.5/4/0.5) over gold over nickel over phos bronze or **P** = 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).

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.

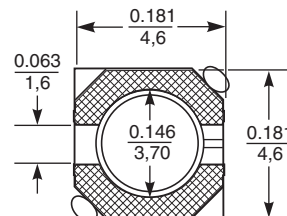
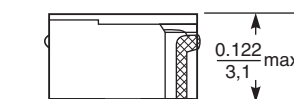
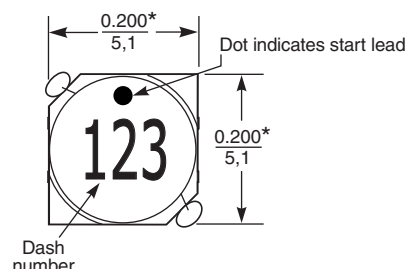
4. DC current at 25°C that causes the specified inductance drop from its value without current. [Click for temperature derating information.](#)

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.

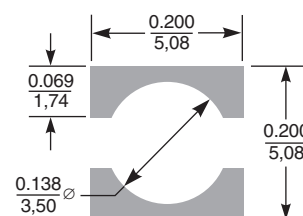
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Dimensions



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

*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



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