



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

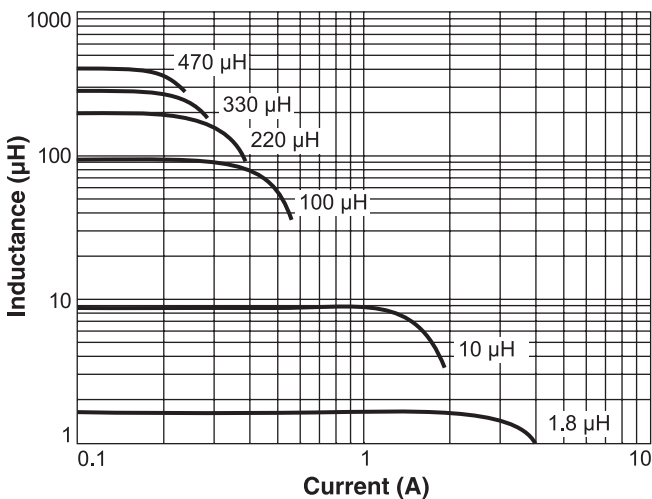
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

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

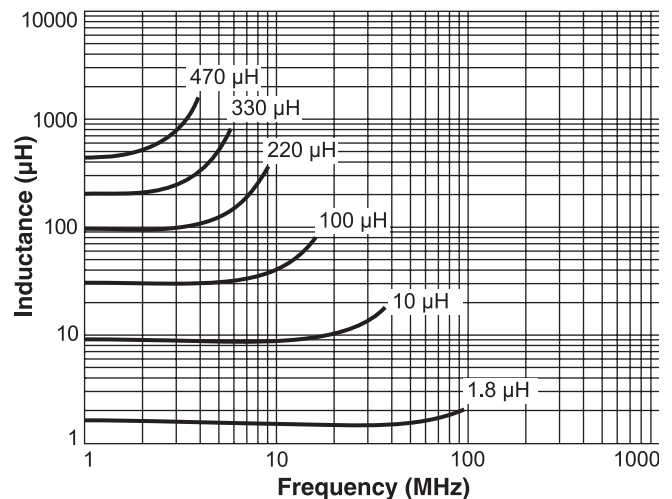
Packaging 600/7" reel, 2500/13" reel; Plastic tape: 12 mm wide, 0.35 mm thick, 8 mm pocket spacing, 3.25 mm pocket depth

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





Shielded Power Inductors – MSS5131H

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.

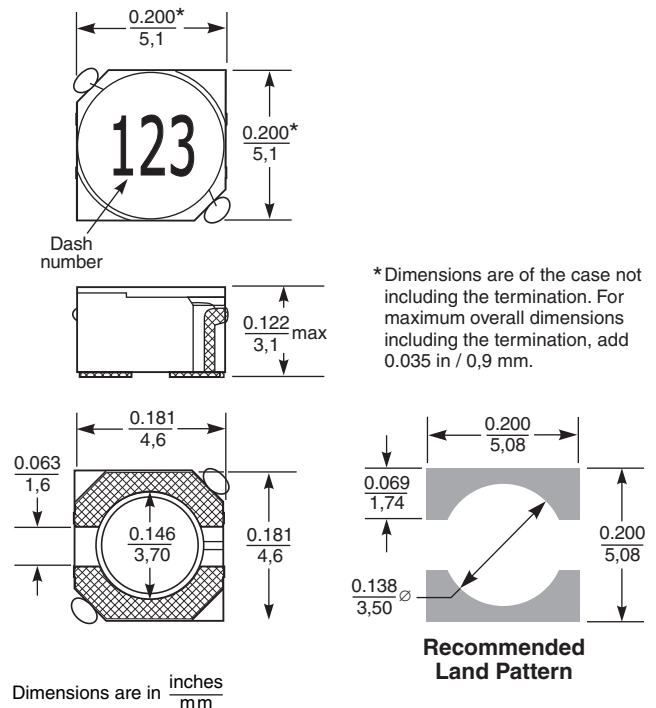
Special order:
Q = RoHS tin-silver-copper (95.5/4/0.5) over gold over nickel over phos bronze or **P** = non-RoHS tin-lead (63/37) over gold over nickel over phos bronze.

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).

- Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
- SRF measured using Agilent/HP 4191A or equivalent.
- DC current at 25°C that causes the specified inductance drop from its value without current. [Click for temperature derating information.](#)
- 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.](#)
- Electrical specifications at 25°C. Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Dimensions



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 1569-2 Revised 04/26/22
 © Coilcraft Inc. 2022
 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.