

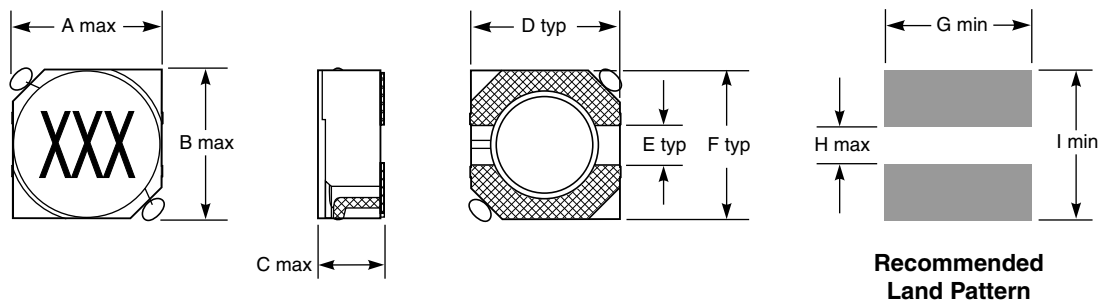
SMT Power Inductors - MSS Series



The MSS series is ideal for applications requiring high power and high efficiency such as notebook computers, PC cards, cellular phone handsets, and handheld products. These magnetically shielded, low-profile power inductors are designed for high-density mounting and are available on tape and reel for auto-insertion. Their industry-standard shape and flat-top design ensures reliable pick and place handling.

They are available in three families with inductance ratings from 2.2 to 390 μH . These inductors can handle current as high as 1.9 Amps and offer DC resistance as low as 0.023 Ohms.

Samples of all values are available in Coilcraft **Designer's Kits**. Order **Kit C162** for MSS5131, **Kit C163** for MSS6122 and **Kit C164** for MSS6132. Contact Coilcraft or purchase the kits on-line at <http://order.coilcraft.com>.



Series	A max	B max	C max	D typ	E typ	F typ	G min	H max	I min
MSS5131	0.200	0.200	0.122	0.181	0.063	0.181	0.197	0.063	0.197
	5,1	5,1	3,1	4,6	1,6	4,6	5,0	1,6	5,0
MSS6122	0.240	0.240	0.087	0.220	0.079	0.220	0.237	0.079	0.237
	6,1	6,1	2,2	5,6	2,0	5,6	6,0	2,0	6,0
MSS6132	0.240	0.240	0.126	0.220	0.079	0.220	0.237	0.079	0.237
	6,1	6,1	3,2	5,6	2,0	5,6	6,0	2,0	6,0

Terminations: Nickel/gold over phos bronze
Tape and reel: MSS5131 400/7" reel; 1500/13" reel 16 mm tape width
MSS6122 500/7" reel; 1500/13" reel 16 mm tape width
MSS6132 500/7" reel; 1500/13" reel 16 mm tape width
For packaging data see Tape and Reel Specifications section.

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Specifications subject to change without notice.
Please check our website for latest information. Document 278-1 Revised 10/21/03

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MSS5131 Series

Part number ¹	L $\pm 20\%$ ² (μH)	DCR max (Ω)	SRF ³ typ (MHz)	Isat ⁴ (A)	I _{rms} ⁵	
					20°C rise (A)	40°C rise (A)
MSS5131-222MX_	2.2	0.023	65.0	1.90	2.00	3.30
MSS5131-332MX_	3.3	0.032	60.0	1.53	1.60	2.90
MSS5131-472MX_	4.7	0.045	48.0	1.26	1.40	2.50
MSS5131-562MX_	5.6	0.055	44.0	1.16	1.30	2.30
MSS5131-682MX_	6.8	0.060	42.0	1.05	1.20	2.16
MSS5131-822MX_	8.2	0.075	40.0	0.96	1.10	2.00
MSS5131-103MX_	10	0.083	38.0	0.87	1.00	1.90
MSS5131-123MX_	12	0.100	35.0	0.80	0.97	1.60
MSS5131-153MX_	15	0.115	32.0	0.71	0.94	1.50
MSS5131-183MX_	18	0.150	26.0	0.65	0.89	1.40
MSS5131-223MX_	22	0.160	22.0	0.58	0.87	1.30
MSS5131-273MX_	27	0.190	19.0	0.53	0.85	1.20
MSS5131-333MX_	33	0.216	18.0	0.48	0.80	1.10
MSS5131-393MX_	39	0.290	17.0	0.44	0.74	1.00
MSS5131-473MX_	47	0.320	16.0	0.40	0.71	0.95
MSS5131-563MX_	56	0.365	15.0	0.36	0.70	0.90
MSS5131-683MX_	68	0.480	12.5	0.33	0.66	0.85
MSS5131-823MX_	82	0.520	12.0	0.30	0.62	0.80
MSS5131-104MX_	100	0.700	11.5	0.27	0.55	0.69
MSS5131-124MX_	120	0.800	11.0	0.25	0.51	0.62
MSS5131-154MX_	150	1.100	10.0	0.22	0.47	0.58
MSS5131-184MX_	180	1.200	9.0	0.20	0.43	0.54
MSS5131-224MX_	220	1.400	8.0	0.18	0.39	0.50
MSS5131-274MX_	270	1.800	7.5	0.17	0.35	0.45
MSS5131-334MX_	330	2.100	6.8	0.15	0.32	0.42
MSS5131-394MX_	390	2.200	5.4	0.14	0.30	0.38

1. When ordering, please specify **packaging** code:

MSS5131-394MX C

Packaging code:

C = 7" machine-ready reel EIA-481 embossed plastic tape (400 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 (1500 per reel per full reel).

2. Inductance tested at 100 kHz, 0.1 V_{rms}, 0 Adc.

3. SRF measured using Agilent/HP 4191A or equivalent.

4. DC current at which the inductance drops 10% (typ) from its value without current.

5. Average current for temperature rise above 25°C ambient.

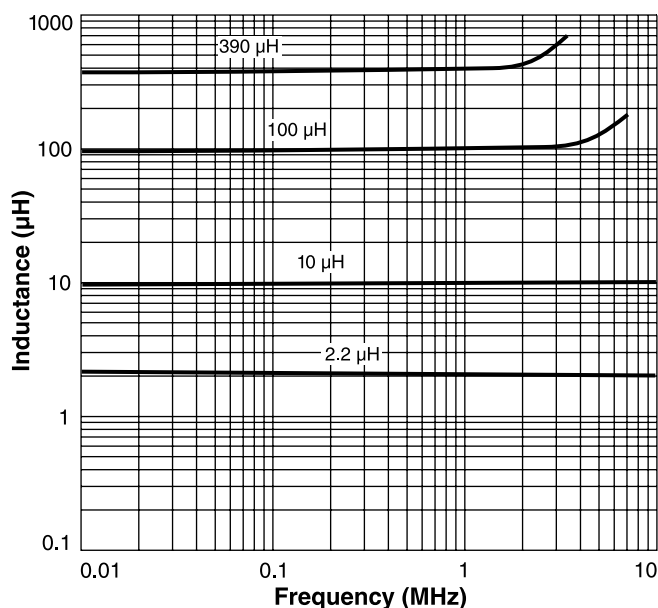
6. Operating temperature range -40°C to +85°C.

7. Electrical specifications at 25°C.

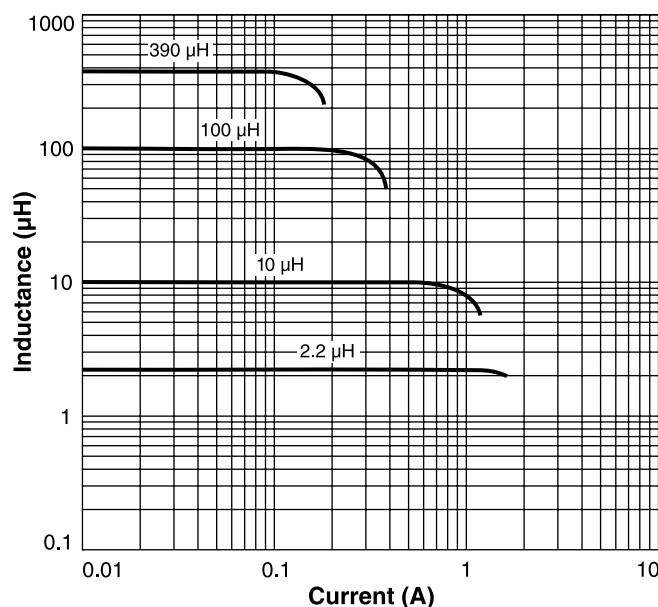
See Qualification Standards section for environmental and test data.

SPICE models
ON OUR WEB SITE OR CD

Typical L vs Frequency



Typical L vs Current



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MSS6122 Series

Part number ¹	L ±20% ² (μH)	DCR max (Ω)	SRF ³ typ (MHz)	Isat ⁴ (A)	I _{rms} ⁵	
					20°C rise (A)	40°C rise (A)
MSS6122-472MX_	4.7	0.065	65.0	1.85	1.60	2.30
MSS6122-562MX_	5.6	0.083	60.0	1.60	1.50	2.10
MSS6122-682MX_	6.8	0.100	48.0	1.45	1.40	2.00
MSS6122-822MX_	8.2	0.120	44.0	1.25	1.30	1.80
MSS6122-103MX_	10	0.150	42.0	1.20	1.20	1.70
MSS6122-123MX_	12	0.176	40.0	1.10	1.13	1.60
MSS6122-153MX_	15	0.210	38.0	0.97	1.06	1.50
MSS6122-183MX_	18	0.280	35.0	0.85	0.99	1.40
MSS6122-223MX_	22	0.310	32.0	0.80	0.92	1.30
MSS6122-273MX_	27	0.350	26.0	0.75	0.85	1.20
MSS6122-333MX_	33	0.460	22.0	0.65	0.77	1.10
MSS6122-393MX_	39	0.540	19.0	0.57	0.70	1.00
MSS6122-473MX_	47	0.680	18.0	0.54	0.63	0.90
MSS6122-563MX_	56	0.740	17.0	0.50	0.56	0.80
MSS6122-683MX_	68	1.000	16.0	0.43	0.49	0.70
MSS6122-823MX_	82	1.200	15.0	0.41	0.42	0.60
MSS6122-104MX_	100	1.370	12.5	0.36	0.35	0.50

1. When ordering, please specify **packaging** code:

MSS6122-104MX**C**

Packaging code:

C = 7" machine-ready reel EIA-481 embossed plastic tape (500 per full reel).

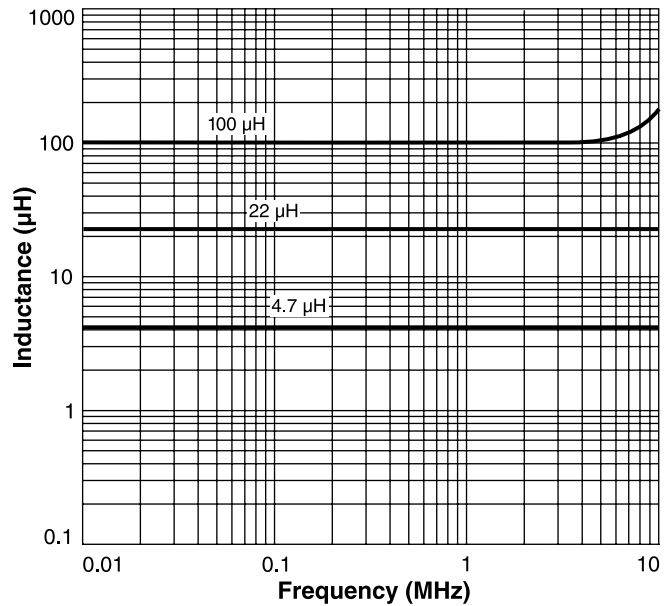
B = Less than full reel In tape, but not machine-ready. To have a leader and trailer added (\$25 charge), use code letter C instead.

D = 13" machine-ready reel EIA-481 embossed plastic tape. Factory order only, not stocked (1500 per reel per full reel).

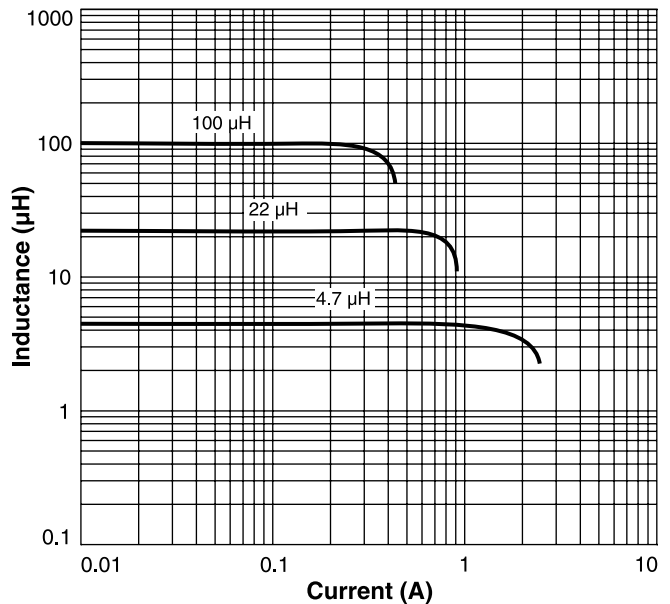
2. Inductance tested at 100 kHz, 0.1 V_{rms}, 0 Adc.
 3. SRF measured using Agilent/HP 4191A or equivalent.
 4. DC current at which the inductance drops 10% (typ) from its value without current.
 5. Average current for temperature rise above 25°C ambient.
 6. Operating temperature range -40°C to +85°C.
 7. Electrical specifications at 25°C.
- See Qualification Standards section for environmental and test data.

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Typical L vs Frequency



Typical L vs Current



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MSS6132 Series

Part number ¹	L $\pm 20\%$ ² (μH)	DCR max (Ω)	SRF ³ typ (MHz)	Isat ⁴ (A)	I _{rms} ⁵	
					20°C rise (A)	40°C rise (A)
MSS6132-472MX_	4.7	0.056	65.0	1.80	2.30	3.10
MSS6132-562MX_	5.6	0.060	60.0	1.60	2.20	2.95
MSS6132-682MX_	6.8	0.065	47.0	1.50	2.10	2.80
MSS6132-822MX_	8.2	0.070	45.0	1.35	2.00	2.65
MSS6132-103MX_	10	0.085	39.0	1.30	1.90	2.50
MSS6132-123MX_	12	0.110	33.0	1.10	1.75	2.35
MSS6132-153MX_	15	0.135	27.0	1.00	1.65	2.20
MSS6132-183MX_	18	0.160	24.0	0.90	1.55	2.05
MSS6132-223MX_	22	0.190	21.0	0.83	1.45	1.90
MSS6132-273MX_	27	0.235	19.0	0.75	1.30	1.75
MSS6132-333MX_	33	0.310	18.0	0.68	1.20	1.60
MSS6132-393MX_	39	0.345	17.0	0.62	1.10	1.45
MSS6132-473MX_	47	0.380	16.0	0.56	0.95	1.30
MSS6132-563MX_	56	0.430	14.0	0.52	0.85	1.15
MSS6132-683MX_	68	0.580	12.0	0.47	0.73	1.00
MSS6132-823MX_	82	0.640	10.0	0.43	0.60	0.85
MSS6132-104MX_	100	0.820	9.0	0.39	0.50	0.69

1. When ordering, please specify **packaging** code:

MSS6132-823MX **C**

Packaging code:

C = 7" machine-ready reel EIA-481 embossed plastic tape (500 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 (1500 per reel per full reel).

2. Inductance tested at 100 kHz, 0.1 V_{rms}, 0 Adc.

3. SRF measured using Agilent/HP 4191A or equivalent.

4. DC current at which the inductance drops 10% (typ) from its value without current.

5. Average current for temperature rise above 25°C ambient.

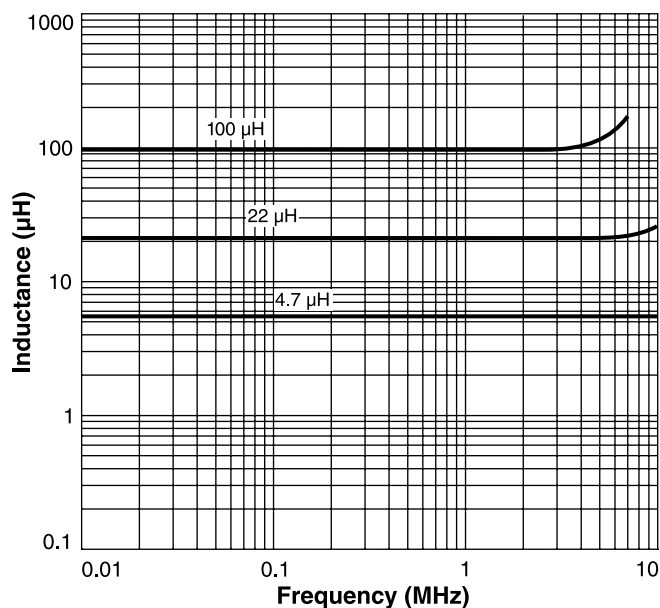
6. Operating temperature range -40°C to +85°C.

7. Electrical specifications at 25°C.

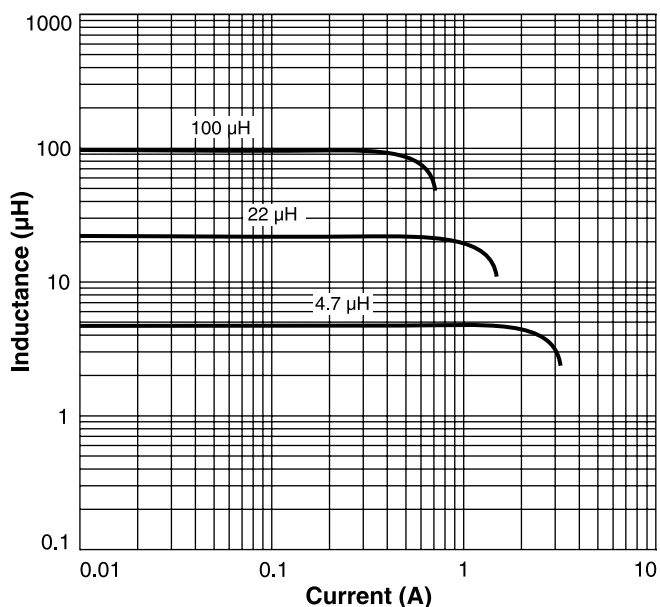
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