

MODEL HM78 SERIES

Shielded Surface Mount Inductors

NEW PRODUCT



FEATURES & BENEFITS

- Magnetic shielded construction for high density board assembly
- High performance, low loss ferrite core is excellent for high frequency applications
- Low profile designed for machine placement
- 10 μ H to 1,000 μ H inductance range
- Up to 12 amps continuous
- Compatible with vapor phase and infrared reflow soldering
- Two styles available
- Custom designs available

APPLICATIONS

- Laptop and notebook computers, PDAs
- DC/DC converter in distributed power system and hand held equipment
- Inductor for general purpose

ELECTRICAL / ENVIRONMENTAL

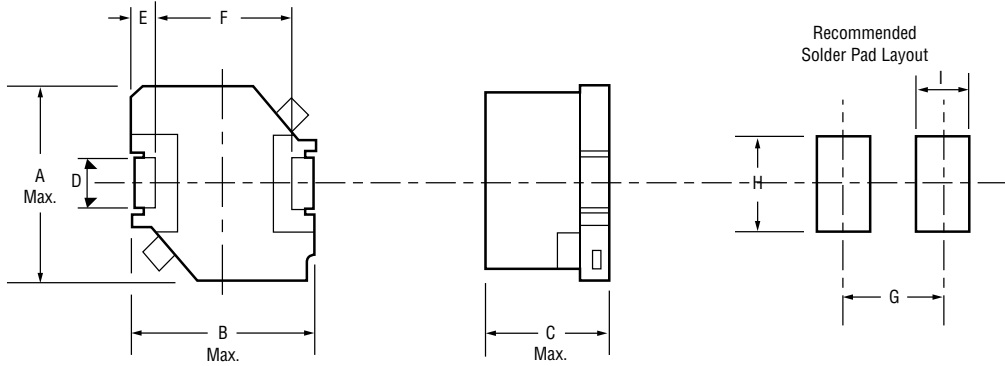
Operating Temperature Range	-25°C to +85°C
Storage Temperature Range	-40°C to +85°C
Insulation System	Class B, 130°C
Temperature Rise, Maximum	40°C

Specifications subject to change without notice.

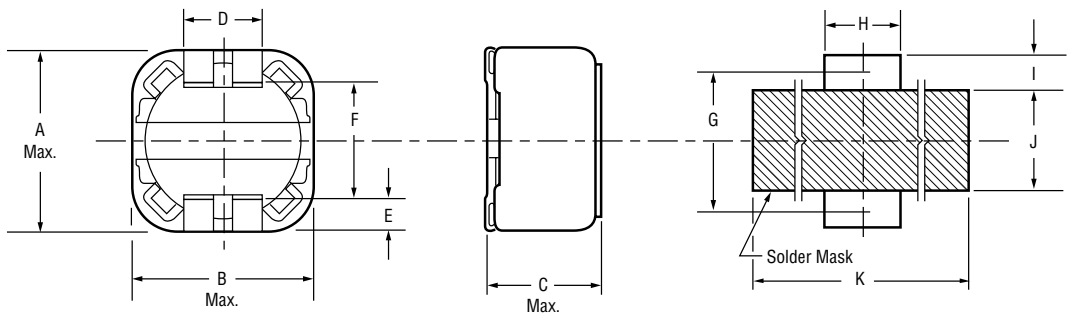
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OUTLINE DIMENSIONS (Inch/mm)

Style 1



Style 2



Case Size	Style	A	B	C	D	E	F	G	H	I	J	K
10	1	.291	.291	.150	.079	.035	.220	.256	.118	.075	—	—
		7.40	7.40	3.80	2.00	0.85	5.60	6.50	3.0	1.91	—	—
20	1	.291	.291	.205	.079	0.35	.220	.256	.118	.075	—	—
		7.40	7.40	5.20	2.00	0.85	5.60	6.50	3.00	1.91	—	—
30	2	.295	.295	.138	.079	.043	.200	.248	.118	.075	.177	.413
		7.50	7.50	3.50	2.00	1.10	5.08	6.30	3.00	1.91	4.50	10.5
40	2	.295	.295	.177	.079	.043	.200	.248	.118	.075	.177	.413
		7.50	7.50	4.50	2.00	1.10	5.08	6.30	3.00	1.91	4.50	10.5
50	2	.492	.492	.244	.197	.079	.299	.394	.236	.118	.276	.710
		12.5	12.5	6.20	5.00	2.00	7.60	10.0	6.00	3.0	7.00	18.0
60	2	.492	.492	.315	.197	.079	.299	.394	.236	.118	.276	.710
		12.5	12.5	8.00	5.00	2.00	7.60	10.0	6.00	3.0	7.00	18.0

SPECIFICATIONS

Part Number	Inductance $\mu\text{H} \pm 20\%$ (Note 1)	DC Resistance Ω Max	Rated Current Amps (Note 2)	Style
HM78-10100	10	0.14	1.00	1
HM78-10120	12	0.16	0.94	1
HM78-10150	15	0.18	0.86	1
HM78-10180	18	0.25	0.78	1
HM78-10220	22	0.32	0.76	1
HM78-10270	27	0.36	0.64	1
HM78-10330	33	0.41	0.61	1
HM78-10390	39	0.47	0.53	1
HM78-10470	47	0.51	0.50	1
HM78-10560	56	0.72	0.46	1
HM78-10680	68	0.82	0.42	1
HM78-20100	10	0.07	1.65	1
HM78-20120	12	0.08	1.50	1
HM78-20150	15	0.09	1.34	1
HM78-20180	18	0.11	1.22	1
HM78-20220	22	0.12	1.10	1
HM78-20270	27	0.17	1.00	1
HM78-20330	33	0.19	0.90	1
HM78-20390	39	0.21	0.83	1
HM78-20470	47	0.24	0.75	1
HM78-20560	56	0.32	0.69	1
HM78-20680	68	0.37	0.63	1
HM78-20820	82	0.40	0.57	1
HM78-20101	100	0.54	0.52	1
HM78-20121	120	0.62	0.47	1
HM78-20151	150	0.86	0.42	1
HM78-20181	180	0.97	0.38	1
HM78-20221	220	1.31	0.35	1
HM78-20271	270	1.46	0.31	1
HM78-30100	10	0.08	1.68	2
HM78-30120	12	0.11	1.52	2
HM78-30150	15	0.13	1.33	2
HM78-30180	18	0.15	1.20	2
HM78-30220	22	0.20	1.07	2
HM78-30270	27	0.22	0.96	2
HM78-30330	33	0.25	0.91	2

Note 1: Inductance measured at 1.0kHz without DC current.

Note 2: Rated DC current is the approximate current at which inductance will be decreased by 10% from its initial (zero DC) value or the DC current at which $\Delta T = 40^\circ\text{C}$, whichever is lower.

SPECIFICATIONS

Part Number	Inductance $\mu\text{H} \pm 20\%$ (Note 1)	DC Resistance Ω Max	Rated Current Amps (Note 2)	Style
HM78-30390	39	0.34	0.77	2
HM78-30470	47	0.39	0.76	2
HM78-30560	56	0.50	0.68	2
HM78-30680	68	0.55	0.61	2
HM78-30820	82	0.74	0.57	2
HM78-30101	100	0.84	0.50	2
HM78-30121	120	0.96	0.49	2
HM78-30151	150	1.42	0.43	2
HM78-30181	180	1.62	0.39	2
HM78-30221	220	1.84	0.35	2
HM78-30271	270	2.59	0.32	2
HM78-30331	330	2.93	0.28	2
HM78-30391	390	3.29	0.26	2
HM78-30471	470	4.67	0.24	2
HM78-40100	10	0.049	1.84	2
HM78-40120	12	0.058	1.71	2
HM78-40150	15	0.081	1.47	2
HM78-40180	18	0.091	1.31	2
HM78-40220	22	0.11	1.23	2
HM78-40270	27	0.15	1.12	2
HM78-40330	33	0.17	0.96	2
HM78-40390	39	0.23	0.91	2
HM78-40470	47	0.26	0.88	2
HM78-40560	56	0.35	0.75	2
HM78-40680	68	0.38	0.69	2
HM78-40820	82	0.43	0.61	2
HM78-40101	100	0.61	0.60	2
HM78-40121	120	0.66	0.52	2
HM78-40151	150	0.88	0.46	2
HM78-40181	180	0.98	0.42	2
HM78-40221	220	1.17	0.36	2
HM78-40271	270	1.64	0.34	2
HM78-40331	330	1.86	0.32	2
HM78-40391	390	2.85	0.29	2
HM78-40471	470	3.01	0.26	2
HM78-40561	560	3.62	0.23	2
HM78-40681	680	4.63	0.22	2
HM78-40821	820	5.20	0.20	2

Note 1: Inductance measured at 1.0kHz without DC current.

Note 2: Rated DC current is the approximate current at which inductance will be decreased by 10% from its initial (zero DC) value or the DC current at which $\Delta T = 40^{\circ}\text{C}$, whichever is lower.

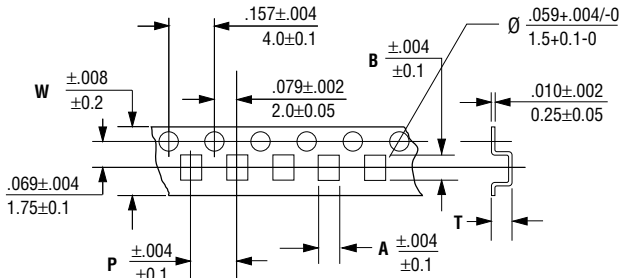
SPECIFICATIONS

Part Number	Inductance $\mu\text{H} \pm 20\%$ (Note 1)	DC Resistance Ω Max	Rated Current Amps (Note 2)	Style
HM78-50100	10	0.025	4.0	2
HM78-50120	12	0.027	3.5	2
HM78-50150	15	0.030	3.3	2
HM78-50180	18	0.038	3.0	2
HM78-50220	22	0.045	2.8	2
HM78-50270	27	0.055	2.3	2
HM78-50330	33	0.063	2.1	2
HM78-50390	39	0.075	2.0	2
HM78-50470	47	0.085	1.8	2
HM78-50560	56	0.11	1.7	2
HM78-50680	68	0.12	1.5	2
HM78-50820	82	0.14	1.4	2
HM78-50101	100	0.165	1.3	2
HM78-50121	120	0.195	1.1	2
HM78-50151	150	0.25	1.0	2
HM78-50181	180	0.29	0.9	2
HM78-50221	220	0.40	0.8	2
HM78-50271	270	0.46	0.75	2
HM78-50331	330	0.51	0.68	2
HM78-50391	390	0.69	0.65	2
HM78-50471	470	0.77	0.58	2
HM78-50561	560	0.88	0.54	2
HM78-50681	680	1.20	0.48	2
HM78-50821	820	1.34	0.43	2
HM78-50102	1000	1.53	0.40	2
HM78-601R4	1.4	.0052	12.0	2
HM78-602R4	2.4	0.012	8.0	2
HM78-604R7	4.7	0.016	6.8	2
HM78-607R6	7.6	0.02	5.9	2
HM78-60100	10	0.022	5.4	2
HM78-60120	12	0.025	4.9	2
HM78-60150	15	0.027	4.5	2
HM78-60180	18	0.039	3.9	2
HM78-60220	22	0.043	3.6	2
HM78-60270	27	0.046	3.4	2
HM78-60330	33	0.065	3.0	2
HM78-60390	39	0.073	2.75	2
HM78-60470	47	0.10	2.5	2

Note 1: Inductance measured at 1.0kHz without DC current.

Note 2: Rated DC current is the approximate current at which inductance will be decreased by 10% from its initial (zero DC) value or the DC current at which $\Delta T = 40^\circ\text{C}$, whichever is lower.

TAPE AND REEL (INCH/mm)



Tape Material: Polystyrene

Case Size	A Dim.	B Dim.	W Dim.	P Dim.	T Dim.
10	.299	.299	.945	.473	.150
	7.60	7.60	24.0	12.0	3.80
20	.299	.299	.945	.473	.181
	7.60	7.60	24.0	12.0	4.60
30	.299	.299	.945	.473	.150
	7.60	7.60	24.0	12.0	3.80
40	.299	.299	.945	.473	.181
	7.60	7.60	24.0	12.0	4.60
50	.512	.512	.945	.630	.256
	13.0	13.0	24.0	16.0	6.50
60	.512	.512	.945	.630	.313
	13.0	13.0	24.0	16.0	7.95

PACKAGING

Standard: Embossed Tape & Reel

Reel: Diameter = 13"
Capacity = 1,000 (Case Sizes 10, 20, 30 and 40)
500 (Case Sizes 50 and 60)

ORDERING INFORMATION

Model Series **HM78** **20** **100**

Case Size: _____

Inductance Code:
1st two digits are significant.
Last digit denotes number
of trailing zeros.

Case Size	Body Style
10	= 1
20	= 1
30	= 2
40	= 2
50	= 2
60	= 2