

Shielded Surface Mount Inductors

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

Specifications @ 25°C

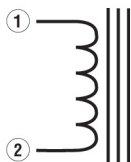
Part Number	Inductance μH ± 20% (1)	DC Resistance Ω Max	Rated Current (2) Amps	Figure	Part Number	Inductance μH ± 20% (1)	DC Resistance Ω Max	Rated Current (2) Amps	Figure
HM78-10100LF	10	0.08	1.00	1	HM78-30181LF	180	1.45	0.39	2
HM78-10120LF	12	0.09	0.94	1	HM78-30221LF	220	1.65	0.35	2
HM78-10150LF	15	0.12	0.86	1	HM78-30271LF	270	2.31	0.32	2
HM78-10180LF	18	0.13	0.78	1	HM78-30331LF	330	2.62	0.28	2
HM78-10220LF	22	0.15	0.76	1	HM78-30391LF	390	2.94	0.26	2
HM78-10270LF	27	0.21	0.64	1	HM78-30471LF	470	4.18	0.24	2
HM78-10330LF	33	0.25	0.61	1	HM78-30102LF	1000	6.50	0.16	2
HM78-10390LF	39	0.31	0.53	1	HM78-40100LF	10	0.049	1.84	2
HM78-10470LF	47	0.35	0.50	1	HM78-40120LF	12	0.058	1.71	2
HM78-10560LF	56	0.43	0.46	1	HM78-40150LF	15	0.081	1.47	2
HM78-10680LF	68	0.52	0.42	1	HM78-40180LF	18	0.091	1.31	2
HM78-20100LF	10	0.055	1.65	1	HM78-40220LF	22	0.11	1.23	2
HM78-20120LF	12	0.073	1.50	1	HM78-40270LF	27	0.15	1.12	2
HM78-20150LF	15	0.081	1.34	1	HM78-40330LF	33	0.17	0.96	2
HM78-20180LF	18	0.102	1.22	1	HM78-40390LF	39	0.23	0.91	2
HM78-20220LF	22	0.115	1.10	1	HM78-40470LF	47	0.26	0.88	2
HM78-20270LF	27	0.159	1.00	1	HM78-40560LF	56	0.35	0.75	2
HM78-20330LF	33	0.182	0.90	1	HM78-40680LF	68	0.38	0.69	2
HM78-20390LF	39	0.199	0.83	1	HM78-40820LF	82	0.43	0.61	2
HM78-20470LF	47	0.221	0.75	1	HM78-40101LF	100	0.61	0.60	2
HM78-20560LF	56	0.306	0.69	1	HM78-40121LF	120	0.66	0.52	2
HM78-20680LF	68	0.345	0.63	1	HM78-40151LF	150	0.88	0.46	2
HM78-20820LF	82	0.39	0.57	1	HM78-40181LF	180	0.98	0.42	2
HM78-20101LF	100	0.432	0.52	1	HM78-40221LF	220	1.17	0.36	2
HM78-20121LF	120	0.44	0.47	1	HM78-40271LF	270	1.64	0.34	2
HM78-20151LF	150	0.73	0.42	1	HM78-40331LF	330	1.86	0.32	2
HM78-20181LF	180	0.78	0.38	1	HM78-40391LF	390	2.85	0.29	2
HM78-20221LF	220	0.94	0.35	1	HM78-40471LF	470	3.01	0.26	2
HM78-20271LF	270	1.25	0.31	1	HM78-40561LF	560	3.62	0.23	2
HM78-30100LF	10	0.072	1.68	2	HM78-40681LF	680	4.63	0.22	2
HM78-30120LF	12	0.098	1.52	2	HM78-40821LF	820	5.20	0.20	2
HM78-30150LF	15	0.13	1.33	2	HM78-453R9LF	3.9	0.015	6.5	3
HM78-30180LF	18	0.14	1.20	2	HM78-454R7LF	4.7	0.018	5.7	3
HM78-30220LF	22	0.19	1.07	2	HM78-456R8LF	6.8	0.023	4.9	3
HM78-30270LF	27	0.21	0.96	2	HM78-45100LF	10	0.028	4.5	3
HM78-30330LF	33	0.24	0.91	2	HM78-45120LF	12	0.038	4.0	3
HM78-30390LF	39	0.32	0.77	2	HM78-45150LF	15	0.050	3.2	3
HM78-30470LF	47	0.36	0.76	2	HM78-45180LF	18	0.057	3.1	3
HM78-30560LF	56	0.47	0.68	2	HM78-45220LF	22	0.066	2.9	3
HM78-30680LF	68	0.52	0.61	2	HM78-45270LF	27	0.080	2.8	3
HM78-30820LF	82	0.69	0.57	2	HM78-45330LF	33	0.097	2.7	3
HM78-30101LF	100	0.79	0.50	2	HM78-45390LF	39	0.132	2.1	3
HM78-30121LF	120	0.89	0.49	2	HM78-45470LF	47	0.150	1.9	3
HM78-30151LF	150	1.27	0.43	2	HM78-45560LF	56	0.190	1.8	3

Specifications @ 25 °C (Cont'd)

Part Number	Inductance $\mu\text{H} \pm 20\%$ (1)	DC Resistance Ω Max	Rated Current (2)		Part Number	Inductance $\mu\text{H} \pm 20\%$ (1)	DC Resistance Ω Max	Rated Current (2)	
			Amps	Figure				Amps	Figure
HM78-45680LF	68	0.220	1.5	3	HM78-50151LF	150	0.23	1.0	3
HM78-45820LF	82	0.260	1.3	3	HM78-50181LF	180	0.29	0.9	3
HM78-45101LF	100	0.308	1.2	3	HM78-50221LF	220	0.40	0.8	3
HM78-45121LF	120	0.380	1.1	3	HM78-50271LF	270	0.46	0.75	3
HM78-45151LF	150	0.530	0.95	3	HM78-50331LF	330	0.51	0.68	3
HM78-45181LF	180	0.620	0.85	3	HM78-50391LF	390	0.69	0.65	3
HM78-45221LF	220	0.700	0.80	3	HM78-50471LF	470	0.77	0.58	3
HM78-45271LF	270	0.876	0.60	3	HM78-50561LF	560	0.86	0.54	3
HM78-45331LF	330	0.990	0.50	3	HM78-50681LF	680	1.20	0.48	3
HM78-501R5LF	1.5 \pm 25%	0.012	13.0	3	HM78-50821LF	820	1.34	0.43	3
HM78-502R2LF	2.2 \pm 25%	0.014	7.0	3	HM78-50102LF	1000	1.53	0.40	3
HM78-503R1LF	3.1 \pm 25%	0.017	6.0	3	HM78-50182LF	1800	3.20	0.30	3
HM78-504R4LF	4.4 \pm 25%	0.020	5.0	3	HM78-601R4LF	1.4 \pm 30%	0.007	12.0	3
HM78-505R2LF	5.2 \pm 25%	0.021	4.4	3	HM78-602R4LF	2.4 \pm 30%	0.012	8.0	3
HM78-507R5LF	7.5 \pm 25%	0.024	4.2	3	HM78-603R9LF	3.9 \pm 30%	0.014	7.5	3
HM78-50100LF	10	0.025	4.0	3	HM78-604R7LF	4.7 \pm 30%	0.016	6.8	3
HM78-50120LF	12	0.027	3.5	3	HM78-605R6LF	5.6 \pm 30%	0.018	6.6	3
HM78-50150LF	15	0.030	3.3	3	HM78-607R6LF	7.6 \pm 30%	0.020	5.9	3
HM78-50180LF	18	0.034	3.0	3	HM78-60100LF	10	0.022	5.4	3
HM78-50220LF	22	0.036	2.8	3	HM78-60120LF	12	0.025	4.9	3
HM78-50270LF	27	0.051	2.3	3	HM78-60150LF	15	0.027	4.5	3
HM78-50330LF	33	0.057	2.1	3	HM78-60180LF	18	0.039	3.9	3
HM78-50390LF	39	0.068	2.0	3	HM78-60220LF	22	0.043	3.6	3
HM78-50470LF	47	0.075	1.8	3	HM78-60270LF	27	0.046	3.4	3
HM78-50560LF	56	0.11	1.7	3	HM78-60330LF	33	0.065	3.0	3
HM78-50680LF	68	0.12	1.5	3	HM78-60390LF	39	0.073	2.75	3
HM78-50820LF	82	0.14	1.4	3	HM78-60470LF	47 \pm 15%	0.085	2.5	3
HM78-50101LF	100	0.16	1.3	3	HM78-60221LF	220	0.37	1.2	3
HM78-50121LF	120	0.17	1.1	3					

- Notes: (1) Inductance is measured at 1.0kHz without DC current.
(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.

Schematic

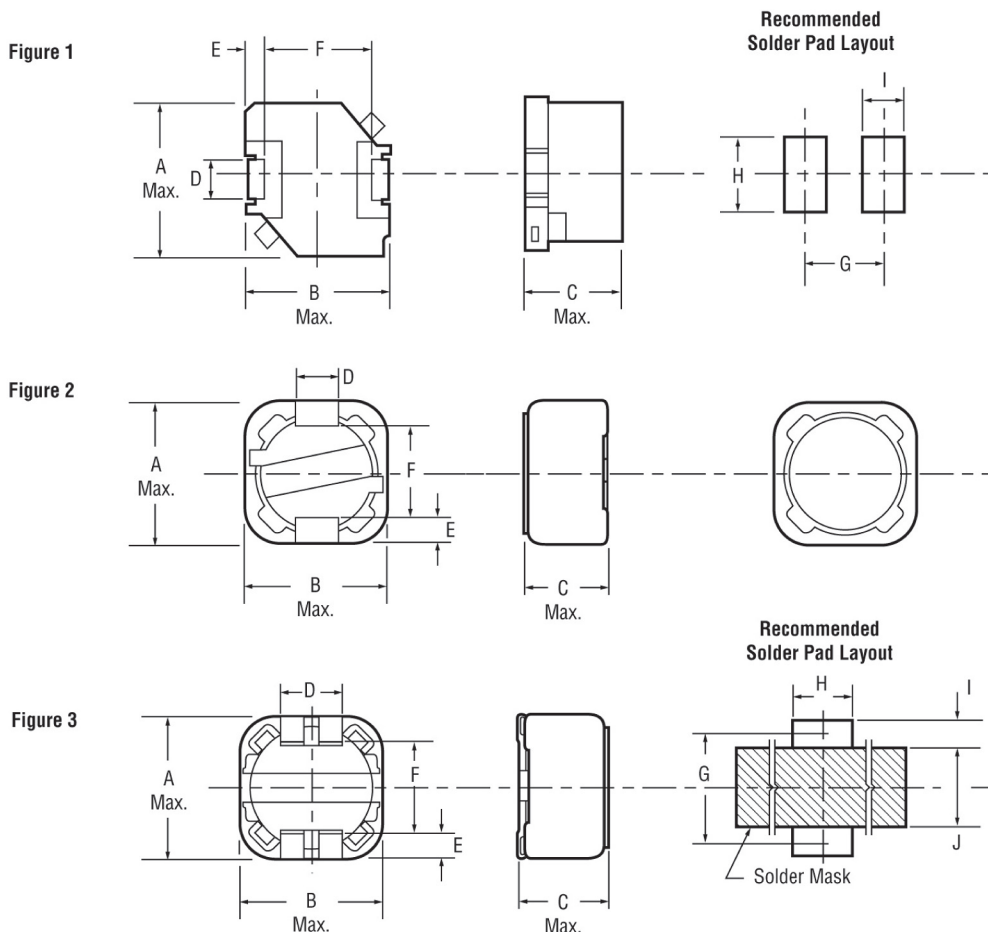


Packaging

Standard: Embossed Tape and Reel

Reel:	Diameter:	=	13" (330.2mm)
	Capacity:	Case size 10, 30, 40	= 1,000 Units
		Case size 20, 45, 50, 60	= 500 Units

Outline Dimensions (Inch/mm)



Case Size	Figure	A	B	C	D	E	F	G	H	I	J
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	3.00	1.91	—
20	1	.291	.291	.205	.079	.035	.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
		7.50	7.50	3.50	2.00	1.10	5.08	6.30	3.00	1.91	4.50
40	2	.295	.295	.177	.079	.043	.200	.248	.118	.075	.177
		7.50	7.50	4.50	2.00	1.10	5.08	6.30	3.00	1.91	4.50
45	3	.492	.492	.177	.197	.079	.299	.394	.236	.118	.276
		12.5	12.5	4.50	5.00	2.00	7.60	10.0	6.00	3.0	7.00
50	3	.492	.492	.244	.197	.079	.299	.394	.236	.118	.276
		12.5	12.5	6.20	5.00	2.00	7.60	10.0	6.00	3.0	7.00
60	3	.492	.492	.315	.197	.079	.299	.394	.236	.118	.276
		12.5	12.5	8.00	5.00	2.00	7.60	10.0	6.00	3.0	7.00

Ordering Information

HM78 **20** **100** **LF** **TR**

Model Series Tape & Reel Packing

Case Size/Body Style: Lead-Free

Inductance Code:
 First 2 digits are significant. Last digit denotes the number of trailing zeros. For values below 10μH, "R" denotes the decimal point

10 (Figure 1) 45 (Figure 3)
 20 (Figure 1) 50 (Figure 3)
 30 (Figure 2) 60 (Figure 3)
 40 (Figure 2)