

Shielded Surface Mount Inductors

Model HM78



Features:

- Operating temperature range -40°C to $+125^{\circ}\text{C}$
- Temperature rise, maximum 40°C
- Operating frequency up to 3MHz
- RoHS compliant

Specifications at 25°C

Part Number	Inductance $\mu\text{H} \pm 20\%$	DC resistance Ω max.	Rated current amps	Figure
HM78-10100LF	10	0.080	1.00	1
HM78-10120LF	12	0.090	0.94	1
HM78-10150LF	15	0.120	0.86	1
HM78-10180LF	18	0.130	0.78	1
HM78-10220LF	22	0.150	0.76	1
HM78-10270LF	27	0.210	0.64	1
HM78-10330LF	33	0.250	0.61	1
HM78-10390LF	39	0.310	0.53	1
HM78-10470LF	47	0.350	0.50	1
HM78-10560LF	56	0.430	0.46	1
HM78-10680LF	68	0.520	0.42	1
HM78-20100LF	10	0.055	1.65	1
HM78-20120LF	12	0.073	1.50	1
HM78-20150LF	15	0.081	1.34	1
HM78-20180LF	18	0.102	1.22	1
HM78-20220LF	22	0.115	1.10	1
HM78-20270LF	27	0.159	1.00	1
HM78-20330LF	33	0.182	0.90	1
HM78-20390LF	39	0.199	0.83	1
HM78-20470LF	47	0.221	0.75	1
HM78-20560LF	56	0.306	0.69	1
HM78-20680LF	68	0.345	0.63	1
HM78-20820LF	82	0.390	0.57	1
HM78-20101LF	100	0.432	0.52	1
HM78-20121LF	120	0.440	0.47	1
HM78-20151LF	150	0.730	0.42	1
HM78-20181LF	180	0.780	0.38	1

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

Shielded Surface Mount Inductors

Model HM78



Specifications at 25°C

Part Number	Inductance $\mu\text{H} \pm 20\%$	DC resistance Ω max.	Rated current amps	Figure
HM78-20221LF	220	0.940	0.35	1
HM78-20271LF	270	1.250	0.31	1
HM78-30100LF	10	0.072	1.68	2
HM78-30120LF	12	0.098	1.52	2
HM78-30150LF	15	0.130	1.33	2
HM78-30180LF	18	0.140	1.20	2
HM78-30220LF	22	0.190	1.07	2
HM78-30270LF	27	0.210	0.96	2
HM78-30330LF	33	0.240	0.91	2
HM78-30390LF	39	0.320	0.77	2
HM78-30470LF	47	0.360	0.76	2
HM78-30560LF	56	0.470	0.68	2
HM78-30680LF	68	0.520	0.61	2
HM78-30820LF	82	0.690	0.57	2
HM78-30101LF	100	0.790	0.50	2
HM78-30121LF	120	0.890	0.49	2
HM78-30151LF	150	1.270	0.43	2
HM78-30181LF	180	1.450	0.39	2
HM78-30221LF	220	1.650	0.35	2
HM78-30271LF	270	2.310	0.32	2
HM78-30331LF	330	2.620	0.28	2
HM78-30391LF	390	2.940	0.26	2
HM78-30471LF	470	4.180	0.24	2
HM78-30102LF	1000	6.500	0.16	2
HM78-402R2LF	2.2	0.027	3.20	2
HM78-403R3LF	3.3	0.026	3.94	2
HM78-40100LF	10	0.055	2.00	2
HM78-40120LF	12	0.058	1.71	2
HM78-40150LF	15	0.081	1.47	2
HM78-40180LF	18	0.091	1.31	2
HM78-40220LF	22	0.110	1.23	2
HM78-40270LF	27	0.150	1.12	2
HM78-40330LF	33	0.170	1.00	2
HM78-40390LF	39	0.230	0.91	2
HM78-40470LF	47	0.260	0.88	2
HM78-40560LF	56	0.350	0.75	2

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

© TT electronics plc

TT Electronics | BI Technologies
4200 Bonita Place, Fullerton, CA USA 92835-1053 | Ph: +1 714-447-2300
www.ttelectronics.com

Issue C 03/2019 Page 2

Shielded Surface Mount Inductors

Model HM78



Specifications at 25°C

Part Number	Inductance $\mu\text{H} \pm 20\%$	DC resistance Ω max.	Rated current amps	Figure
HM78-40680LF	68	0.380	0.69	2
HM78-40820LF	82	0.430	0.61	2
HM78-40101LF	100	0.610	0.60	2
HM78-40121LF	120	0.660	0.52	2
HM78-40151LF	150	0.880	0.46	2
HM78-40181LF	180	0.980	0.42	2
HM78-40221LF	220	1.170	0.36	2
HM78-40271LF	270	1.640	0.34	2
HM78-40331LF	330	1.860	0.32	2
HM78-40391LF	390	2.850	0.29	2
HM78-40471LF	470	3.010	0.26	2
HM78-40561LF	560	3.620	0.23	2
HM78-40681LF	680	4.630	0.22	2
HM78-40821LF	820	5.200	0.20	2
HM78-453R9LF	3.9	0.015	6.50	3
HM78-454R7LF	4.7	0.018	5.70	3
HM78-456R8LF	6.8	0.023	4.90	3
HM78-45100LF	10	0.028	4.50	3
HM78-45120LF	12	0.038	4.00	3
HM78-45150LF	15	0.050	3.20	3
HM78-45180LF	18	0.057	3.10	3
HM78-45220LF	22	0.066	2.90	3
HM78-45270LF	27	0.080	2.80	3
HM78-45330LF	33	0.097	2.70	3
HM78-45390LF	39	0.132	2.10	3
HM78-45470LF	47	0.150	1.90	3
HM78-45560LF	56	0.190	1.80	3
HM78-45680LF	68	0.220	1.50	3
HM78-45820LF	82	0.260	1.30	3
HM78-45101LF	100	0.308	1.20	3
HM78-45121LF	120	0.380	1.10	3
HM78-45151LF	150	0.530	0.95	3
HM78-45181LF	180	0.620	0.85	3
HM78-45221LF	220	0.700	0.80	3
HM78-45271LF	270	0.876	0.60	3
HM78-45331LF	330	0.990	0.50	3

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

© TT electronics plc

TT Electronics | BI Technologies
4200 Bonita Place, Fullerton, CA USA 92835-1053 | Ph: +1 714-447-2300
www.ttelectronics.com

Issue C 03/2019 Page 3

Shielded Surface Mount Inductors

Model HM78



Specifications at 25°C

Part Number	Inductance $\mu\text{H} \pm 20\%$	DC resistance Ω max.	Rated current amps	Figure
HM78-501R5LF	1.5 $\pm 25\%$	0.012	13.00	3
HM78-502R2LF	2.2 $\pm 25\%$	0.014	7.00	3
HM78-503R1LF	3.1 $\pm 25\%$	0.017	6.00	3
HM78-504R4LF	4.4 $\pm 25\%$	0.020	5.00	3
HM78-505R2LF	5.2 $\pm 25\%$	0.021	4.40	3
HM78-507R5LF	7.5 $\pm 25\%$	0.024	4.20	3
HM78-50100LF	10	0.025	4.00	3
HM78-50120LF	12	0.027	3.50	3
HM78-50150LF	15	0.030	3.30	3
HM78-50180LF	18	0.034	3.00	3
HM78-50220LF	22	0.036	2.80	3
HM78-50270LF	27	0.051	2.30	3
HM78-50330LF	33	0.057	2.10	3
HM78-50390LF	39	0.068	2.00	3
HM78-50470LF	47	0.075	1.80	3
HM78-50560LF	56	0.110	1.70	3
HM78-50680LF	68	0.120	1.50	3
HM78-50820LF	82	0.140	1.40	3
HM78-50101LF	100	0.160	1.50	3
HM78-50121LF	120	0.170	1.10	3
HM78-50151LF	150	0.230	1.00	3
HM78-50181LF	180	0.290	0.90	3
HM78-50221LF	220	0.400	0.80	3
HM78-50271LF	270	0.460	0.75	3
HM78-50331LF	330	0.510	0.68	3
HM78-50391LF	390	0.690	0.65	3
HM78-50471LF	470	0.770	0.58	3
HM78-50561LF	560	0.860	0.54	3
HM78-50681LF	680	1.200	0.48	3
HM78-50821LF	820	1.340	0.43	3
HM78-50102LF	1000	1.530	0.40	3
HM78-50182LF	1800	3.200	0.30	3
HM78-601R4LF	1.4 $\pm 30\%$	0.007	12.00	3
HM78-602R4LF	2.4 $\pm 30\%$	0.012	8.00	3
HM78-603R9LF	3.9 $\pm 30\%$	0.140	7.50	3
HM78-604R7LF	4.7 $\pm 30\%$	0.160	6.80	3

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

© TT electronics plc

TT Electronics | BI Technologies
4200 Bonita Place, Fullerton, CA USA 92835-1053 | Ph: +1 714-447-2300
www.ttelectronics.com

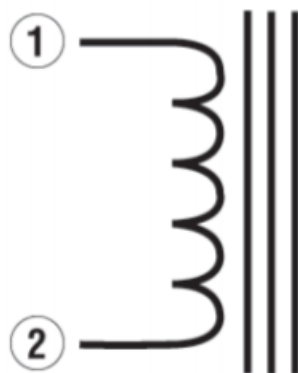
Issue C 03/2019 Page 4

Specifications at 25°C

Part Number	Inductance $\mu\text{H} \pm 20\%$	DC resistance Ω max.	Rated current amps	Figure
HM78-605R6LF	5.6 $\pm 30\%$	0.018	6.60	3
HM78-607R6LF	7.6 $\pm 30\%$	0.020	5.90	3
HM78-60100LF	10	0.022	5.40	3
HM78-60120LF	12	0.025	4.90	3
HM78-60150LF	15	0.027	4.50	3
HM78-60180LF	18	0.039	3.90	3
HM78-60220LF	22	0.043	3.60	3
HM78-60270LF	27	0.046	3.40	3
HM78-60330LF	33	0.065	3.00	3
HM78-60390LF	39	0.073	2.75	3
HM78-60470LF	47	0.085	2.50	3
HM78-60101LF	100	0.220	1.70	3
HM78-60221LF	220	0.370	1.20	3
HM78-60271LF	270	0.560	1.06	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



General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

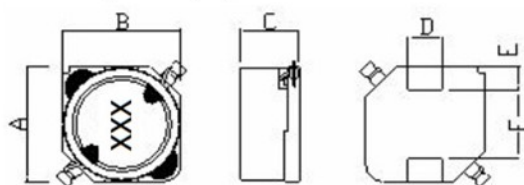
© TT electronics plc

TT Electronics | BI Technologies
 4200 Bonita Place, Fullerton, CA USA 92835-1053 | Ph: +1 714-447-2300
www.ttelectronics.com

Issue C 03/2019 Page 5

Outline Dimensions (inch/mm)

FIGURE 1(CASE 10, 20)



Recommended Solder Pad Layout

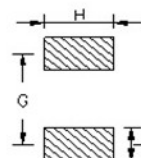


FIGURE 2 (CASE 30, 40)

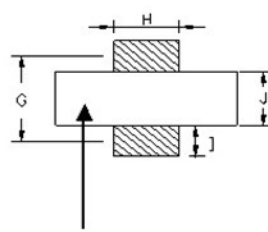
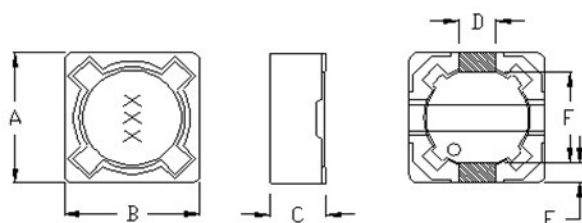
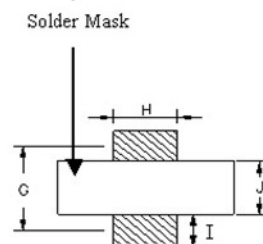
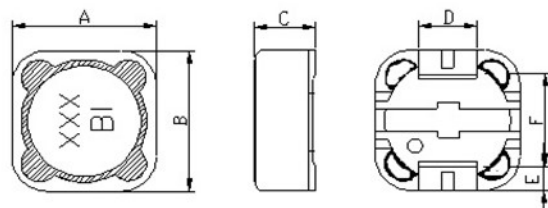


FIGURE 3 (CASE 45, 50, 60)



Case size	Fig.	A (Max)	B (Max)	C (Max)	D	E	F	G	H	I	J
10	1	.291 7.40	.291 7.40	.150 3.80	.079 2.00	.035 0.85	.220 5.60	.256 6.50	.118 3.00	.075 1.91	-
20	1	.291 7.40	.291 7.40	.205 5.20	.079 2.00	.035 0.85	.220 5.60	.256 6.50	.118 3.00	.075 1.91	-
30	2	.295 7.50	.295 7.50	.138 3.50	.079 2.00	.043 1.10	.200 5.08	.248 6.30	.118 3.00	.075 1.91	.177 4.50
40	2	.295 7.50	.295 7.50	.177 4.50	.079 2.00	.043 1.10	.200 5.08	.248 6.30	.118 3.00	.075 1.91	.177 4.50
45	3	.492 12.5	.492 12.5	.177 4.50	.197 5.00	.079 2.00	.299 7.60	.394 10.0	.236 6.00	.118 3.0	.276 7.00
50	3	.492 12.5	.492 12.5	.244 6.20	.197 5.00	.079 2.00	.299 7.60	.394 10.0	.236 6.00	.118 3.0	.276 7.00
60	3	.492 12.5	.492 12.5	.315 8.00	.197 5.00	.079 2.00	.299 7.60	.394 10.0	.236 6.00	.118 3.0	.276 7.00

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

© TT electronics plc

TT Electronics | BI Technologies
4200 Bonita Place, Fullerton, CA USA 92835-1053 | Ph: +1 714-447-2300
www.ttelectronics.com

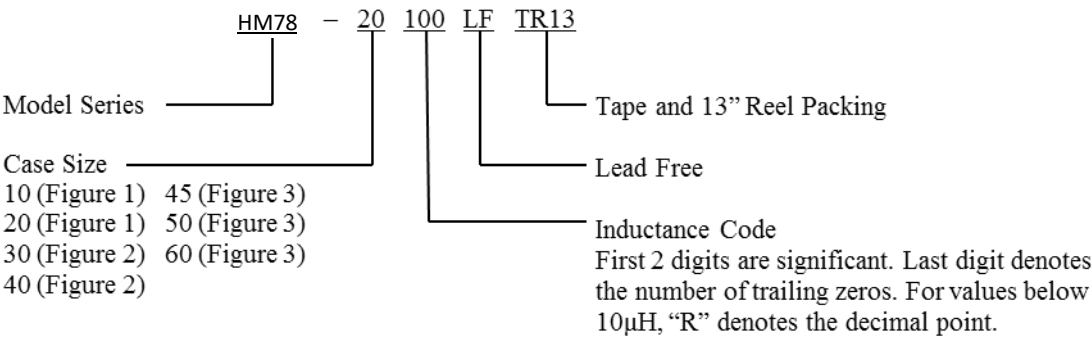
Issue C 03/2019 Page 6

Shielded Surface Mount Inductors

Model HM78



Ordering Information



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

General Note
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics’ own data and is considered accurate at time of going to print.