

A FEATURES

- Shielded Construction with low DCR
- Low cost version of 1MA series
- 260°C reflow peak temperature qualified
- Operating Temperature range from -40°C to +105°C (Including Self-heating)



B PART NUMBER SYSTEM

1MB 125 - 100 M F
 ① ② ③ ④ ⑤

①	Series	②	Dimension Code (L*W*H) (mm)	
1MB	Series Code		73 (7.6×7.6×3.55)	125 (12.5×12.5×6.0)
			74 (7.6×7.6×4.6)	127 (12.5×12.5×8.0)
③	Inductance Code		124 (12.5×12.5×4.5)	
e.g.	Calculation			
2R2	2.2μH			
100	$10 \times 10^0 \mu\text{H} = 10\mu\text{H}$	⑤	RoHS Compliant	
101	$10 \times 10^1 \mu\text{H} = 100\mu\text{H}$			
④	Inductance Tolerance			
K	±10%			
M	±20%			
N	±30%			

C DRAWINGS AND DIMENSIONS

1MB73	1MB74
1MB124	1MB125
1MB127	Schematics

D SPECIFICATIONS

Part Number	Inductance(μ H)	Test Freq.	Tolerance	DCR ¹ Max.(Ω)	I _{Rated} ²
1MB73-2R2NF	2.2	100KHz, 0.3V	±30%	0.025	5.52
1MB73-3R3NF	3.3	100KHz, 0.3V	±30%	0.035	4.22
1MB73-4R7NF	4.7	100KHz, 0.3V	±30%	0.031	3.00
1MB73-100MF	10	1KHz, 0.3V	±20%	0.072	1.68
1MB73-120MF	12	1KHz, 0.3V	±20%	0.098	1.52
1MB73-150MF	15	1KHz, 0.3V	±20%	0.130	1.33
1MB73-180MF	18	1KHz, 0.3V	±20%	0.140	1.20
1MB73-220MF	22	1KHz, 0.3V	±20%	0.190	1.07
1MB73-270MF	27	1KHz, 0.3V	±20%	0.210	0.96
1MB73-330MF	33	1KHz, 0.3V	±20%	0.240	0.91
1MB73-390MF	39	1KHz, 0.3V	±20%	0.320	0.77
1MB73-470MF	47	1KHz, 0.3V	±20%	0.360	0.76
1MB73-560MF	56	1KHz, 0.3V	±20%	0.470	0.68
1MB73-680MF	68	1KHz, 0.3V	±20%	0.520	0.61
1MB73-820MF	82	1KHz, 0.3V	±20%	0.690	0.57
1MB73-101MF	100	1KHz, 0.3V	±20%	0.790	0.50
1MB73-121MF	120	1KHz, 0.3V	±20%	0.890	0.49
1MB73-151MF	150	1KHz, 0.3V	±20%	1.270	0.43
1MB73-181MF	180	1KHz, 0.3V	±20%	1.450	0.39
1MB73-221MF	220	1KHz, 0.3V	±20%	1.650	0.35
1MB73-271MF	270	1KHz, 0.3V	±20%	2.310	0.32
1MB73-331MF	330	1KHz, 0.3V	±20%	2.620	0.28
1MB73-391MF	390	1KHz, 0.3V	±20%	2.940	0.26
1MB73-471MF	470	1KHz, 0.3V	±20%	4.180	0.24
1MB73-561MF	560	1KHz, 0.3V	±20%	4.670	0.22
1MB73-681MF	680	1KHz, 0.3V	±20%	5.730	0.19
1MB73-821MF	820	1KHz, 0.3V	±20%	6.540	0.18
1MB73-102MF	1000	1KHz, 0.3V	±20%	9.440	0.16
1MB74-100MF	10	1KHz, 0.3V	±20%	0.049	1.84
1MB74-120MF	12	1KHz, 0.3V	±20%	0.058	1.71
1MB74-150MF	15	1KHz, 0.3V	±20%	0.081	1.47
1MB74-180MF	18	1KHz, 0.3V	±20%	0.091	1.31
1MB74-220MF	22	1KHz, 0.3V	±20%	0.110	1.23
1MB74-270MF	27	1KHz, 0.3V	±20%	0.150	1.12
1MB74-330MF	33	1KHz, 0.3V	±20%	0.170	0.96
1MB74-390MF	39	1KHz, 0.3V	±20%	0.230	0.91
1MB74-470MF	47	1KHz, 0.3V	±20%	0.260	0.88
1MB74-560MF	56	1KHz, 0.3V	±20%	0.350	0.75
1MB74-680MF	68	1KHz, 0.3V	±20%	0.380	0.69
1MB74-820MF	82	1KHz, 0.3V	±20%	0.430	0.61
1MB74-101MF	100	1KHz, 0.3V	±20%	0.610	0.60
1MB74-121MF	120	1KHz, 0.3V	±20%	0.660	0.52
1MB74-151MF	150	1KHz, 0.3V	±20%	0.880	0.46

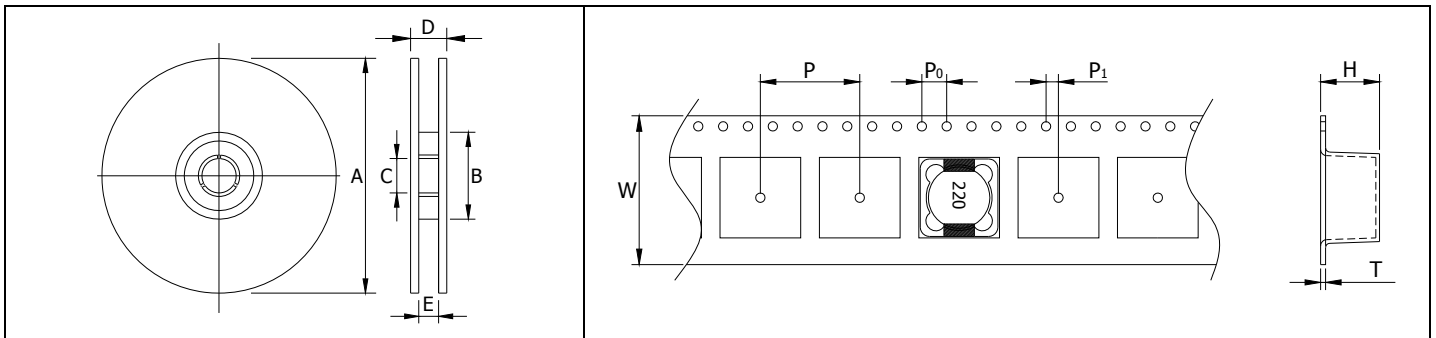
Part Number	Inductance(μ H)	Test Freq.	Tolerance	DCR ¹ Max.(Ω)	I _{Rated} ²
1MB74-181MF	180	1KHz, 0.3V	\pm 20%	0.980	0.42
1MB74-221MF	220	1KHz, 0.3V	\pm 20%	1.170	0.36
1MB74-271MF	270	1KHz, 0.3V	\pm 20%	1.640	0.34
1MB74-331MF	330	1KHz, 0.3V	\pm 20%	1.860	0.32
1MB74-391MF	390	1KHz, 0.3V	\pm 20%	2.850	0.29
1MB74-471MF	470	1KHz, 0.3V	\pm 20%	3.010	0.26
1MB74-561MF	560	1KHz, 0.3V	\pm 20%	3.620	0.23
1MB74-681MF	680	1KHz, 0.3V	\pm 20%	4.630	0.22
1MB74-821MF	820	1KHz, 0.3V	\pm 20%	5.200	0.20
1MB74-102MF	1000	1KHz, 0.3V	\pm 20%	6.000	0.18
1MB124-1R0NF	1.0	100KHz, 0.3V	\pm 30%	0.010	8.00
1MB124-2R2NF	2.2	100KHz, 0.3V	\pm 30%	0.014	4.90
1MB124-3R3NF	3.3	100KHz, 0.3V	\pm 30%	0.015	4.50
1MB124-4R7NF	4.7	100KHz, 0.3V	\pm 30%	0.018	5.70
1MB124-5R6NF	5.6	100KHz, 0.3V	\pm 30%	0.020	5.20
1MB124-6R8NF	6.8	100KHz, 0.3V	\pm 30%	0.023	4.90
1MB124-8R2NF	8.2	100KHz, 0.3V	\pm 30%	0.026	4.60
1MB124-100MF	10	1KHz, 0.3V	\pm 20%	0.028	4.50
1MB124-120MF	12	1KHz, 0.3V	\pm 20%	0.038	4.00
1MB124-150MF	15	1KHz, 0.3V	\pm 20%	0.050	3.20
1MB124-180MF	18	1KHz, 0.3V	\pm 20%	0.057	3.10
1MB124-220MF	22	1KHz, 0.3V	\pm 20%	0.066	2.90
1MB124-270MF	27	1KHz, 0.3V	\pm 20%	0.080	2.80
1MB124-330MF	33	1KHz, 0.3V	\pm 20%	0.097	2.70
1MB124-390MF	39	1KHz, 0.3V	\pm 20%	0.132	2.10
1MB124-470MF	47	1KHz, 0.3V	\pm 20%	0.160	1.90
1MB124-560MF	56	1KHz, 0.3V	\pm 20%	0.190	1.80
1MB124-680MF	68	1KHz, 0.3V	\pm 20%	0.220	1.50
1MB124-820MF	82	1KHz, 0.3V	\pm 20%	0.260	1.30
1MB124-101MF	100	1KHz, 0.3V	\pm 20%	0.310	1.20
1MB124-121MF	120	1KHz, 0.3V	\pm 20%	0.380	1.10
1MB124-151MF	150	1KHz, 0.3V	\pm 20%	0.530	0.95
1MB124-181MF	180	1KHz, 0.3V	\pm 20%	0.620	0.85
1MB124-221MF	220	1KHz, 0.3V	\pm 20%	0.700	0.80
1MB124-271MF	270	1KHz, 0.3V	\pm 20%	0.870	0.60
1MB124-331MF	330	1KHz, 0.3V	\pm 20%	0.990	0.50
1MB125-1R0NF	1.0	100KHz, 0.3V	\pm 30%	0.010	8.00
1MB125-2R2NF	2.2	100KHz, 0.3V	\pm 30%	0.014	7.80
1MB125-3R3NF	3.3	100KHz, 0.3V	\pm 30%	0.014	8.00
1MB125-8R2NF	8.2	100KHz, 0.3V	\pm 30%	0.021	4.40
1MB125-100MF	10	1KHz, 0.3V	\pm 20%	0.025	4.00
1MB125-120MF	12	1KHz, 0.3V	\pm 20%	0.027	3.50
1MB125-150MF	15	1KHz, 0.3V	\pm 20%	0.030	3.30
1MB125-180MF	18	1KHz, 0.3V	\pm 20%	0.034	3.00
1MB125-220MF	22	1KHz, 0.3V	\pm 20%	0.036	2.80

Part Number	Inductance(μ H)	Test Freq.	Tolerance	DCR ¹ Max.(Ω)	I _{Rated} ²
1MB125-270MF	27	1KHz, 0.3V	\pm 20%	0.051	2.30
1MB125-330MF	33	1KHz, 0.3V	\pm 20%	0.057	2.10
1MB125-390MF	39	1KHz, 0.3V	\pm 20%	0.068	2.00
1MB125-470MF	47	1KHz, 0.3V	\pm 20%	0.075	1.80
1MB125-560MF	56	1KHz, 0.3V	\pm 20%	0.110	1.70
1MB125-680MF	68	1KHz, 0.3V	\pm 20%	0.120	1.50
1MB125-820MF	82	1KHz, 0.3V	\pm 20%	0.140	1.40
1MB125-101MF	100	1KHz, 0.3V	\pm 20%	0.160	1.30
1MB125-121MF	120	1KHz, 0.3V	\pm 20%	0.170	1.10
1MB125-151MF	150	1KHz, 0.3V	\pm 20%	0.230	1.00
1MB125-181MF	180	1KHz, 0.3V	\pm 20%	0.290	0.90
1MB125-221MF	220	1KHz, 0.3V	\pm 20%	0.400	0.80
1MB125-271MF	270	1KHz, 0.3V	\pm 20%	0.460	0.75
1MB125-331MF	330	1KHz, 0.3V	\pm 20%	0.510	0.68
1MB125-391MF	390	1KHz, 0.3V	\pm 20%	0.690	0.65
1MB125-471MF	470	1KHz, 0.3V	\pm 20%	0.770	0.58
1MB125-561MF	560	1KHz, 0.3V	\pm 20%	0.860	0.54
1MB125-681MF	680	1KHz, 0.3V	\pm 20%	1.200	0.48
1MB127-1R0NF	1.0	100KHz, 0.3V	\pm 30%	0.006	12.00
1MB127-2R2NF	2.2	100KHz, 0.3V	\pm 30%	0.012	8.00
1MB127-3R3NF	3.3	100KHz, 0.3V	\pm 30%	0.013	8.00
1MB127-4R7NF	4.7	100KHz, 0.3V	\pm 30%	0.016	6.80
1MB127-6R8NF	6.8	100KHz, 0.3V	\pm 30%	0.019	6.60
1MB127-8R2NF	8.2	100KHz, 0.3V	\pm 30%	0.020	5.60
1MB127-100MF	10	1KHz, 0.3V	\pm 20%	0.021	5.40
1MB127-120MF	12	1KHz, 0.3V	\pm 20%	0.024	4.90
1MB127-150MF	15	1KHz, 0.3V	\pm 20%	0.027	4.50
1MB127-180MF	18	1KHz, 0.3V	\pm 20%	0.039	3.90
1MB127-220MF	22	1KHz, 0.3V	\pm 20%	0.043	3.60
1MB127-270MF	27	1KHz, 0.3V	\pm 20%	0.046	3.40
1MB127-330MF	33	1KHz, 0.3V	\pm 20%	0.065	3.00
1MB127-390MF	39	1KHz, 0.3V	\pm 20%	0.073	2.75
1MB127-470MF	47	1KHz, 0.3V	\pm 20%	0.100	2.50
1MB127-560MF	56	1KHz, 0.3V	\pm 20%	0.110	2.35
1MB127-680MF	68	1KHz, 0.3V	\pm 20%	0.140	2.10
1MB127-820MF	82	1KHz, 0.3V	\pm 20%	0.160	1.95
1MB127-101MF	100	1KHz, 0.3V	\pm 20%	0.220	1.70
1MB127-121MF	120	1KHz, 0.3V	\pm 20%	0.250	1.60
1MB127-151MF	150	1KHz, 0.3V	\pm 20%	0.280	1.42
1MB127-181MF	180	1KHz, 0.3V	\pm 20%	0.350	1.30
1MB127-221MF	220	1KHz, 0.3V	\pm 20%	0.390	1.16
1MB127-271MF	270	1KHz, 0.3V	\pm 20%	0.560	1.06
1MB127-331MF	330	1KHz, 0.3V	\pm 20%	0.640	0.95
1MB127-391MF	390	1KHz, 0.3V	\pm 20%	0.700	0.88
1MB127-471MF	470	1KHz, 0.3V	\pm 20%	0.980	0.79

Part Number	Inductance(μH)	Test Freq.	Tolerance	DCR ¹ Max.(Ω)	I _{Rated} ²
1MB127-561MF	560	1KHz, 0.3V	$\pm 20\%$	1.070	0.73
1MB127-681MF	680	1KHz, 0.3V	$\pm 20\%$	1.460	0.67
1MB127-821MF	820	1KHz, 0.3V	$\pm 20\%$	1.640	0.60
1MB127-102MF	1000	1KHz, 0.3V	$\pm 20\%$	1.820	0.55

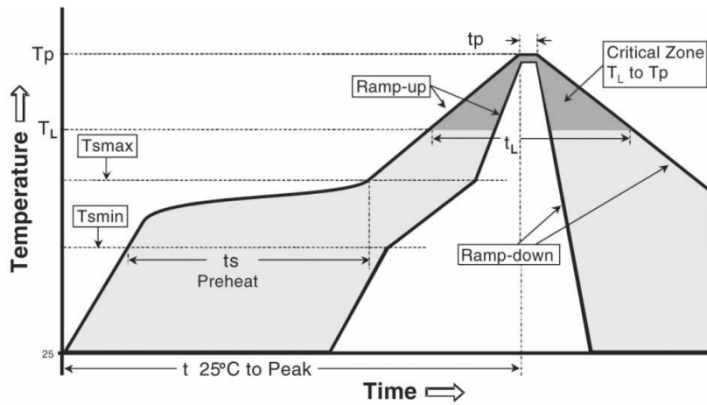
1. DCR measured @ 25°C.
2. I_{Rated}=Min(I_{rms},I_{sat}); I_{rms} based on 40°C rise from 20°C ambient, I_{sat} based on 25% inductance drop.
3. Specifications subject to change without notice please check our website for latest information.

E TAPE AND REEL SPECIFICATIONS



Case Size	Parts per Reel	Reel Dimensions(REF)					Tape Dimensions(REF)					
		A	B	C	D	E	W	P	P ₀	P ₁	H	T
1MB73	1000	330	100	13	22.5	16.5	16	12	4	2	3.8	0.4
1MB74	1000	330	100	13	22.5	16.5	16	12	4	2	4.7	0.4
1MB124	500	330	100	13	30	24.5	24	16	4	2	4.9	0.45
1MB125	500	330	100	13	30	24.5	24	16	4	2	6.2	0.45
1MB127	500	330	100	13	30	24.5	24	16	4	2	8.2	0.45

F RECOMMENDED SOLDER REFLOW PROFILE



Profile Feature	Recommended Conditions
Average ramp-up rate (Tsmax to Tp)	3°C/second max.
Preheat	
Temperature Min (Tsmmin)	100°C
Temperature Max (Tsmmax)	150°C
Time (Tsmmin to Tsmmax)(ts)	60-180 seconds
Time maintained above:	
Temperature (Tl)	217°C
Time (tl)	60-150 seconds
Peak Temperature (Tp)	See Table2
Time within 5°C of actual Peak Temperature (tp) ²	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max

Table 1

Package Thickness	Volume mm ³ <350	Volume mm ³ 350 - 2000	Volume mm ³ >2000
< 1.6mm	260°C	260°C	260°C
1.6mm - 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

Table 2

1. The above profiles are based on IPC/JEDEC J-STD-020C.
2. Exceeding these conditions may cause lowered product reliability.