

A FEATURES

- High current rating
- Wide range of inductance values
- Broad applicability, highly recommended for use in switching regulator designs.
- Operating Temperature range from -40°C to +125°C (Including Self-heating)
- 260°C reflow peak temperature qualified



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)
			124 (12.5×12.5×4.5)	129 (12.5×12.5×10.0)
③	Inductance Code			
e.g.	Calculation			
2R2	2.2μH			
100	10×10 ⁰ μH = 10μH	⑤	RoHS Compliant	
101	10×10 ¹ μH = 100μH			
④	Inductance Tolerance			
M	±20%			
N	±30%			

C DRAWINGS AND DIMENSIONS

1MB73	1MB74
1MB124	1MB125
1MB127	1MB129

D SPECIFICATIONS

Inductance ¹		DCR ²		I _{rms} ³	I _{sat} ⁴
Part Number	μH	Tolerance	Max.(Ω)	A	A
1MB73-2R2NF	2.2	±30%	0.025	5.52	5.80
1MB73-3R3NF	3.3	±30%	0.035	4.22	4.50
1MB73-4R7NF	4.7	±30%	0.031	3.00	3.30
1MB73-6R8MF	6.8	±20%	0.058	2.10	2.20
1MB73-100MF	10	±20%	0.072	1.68	1.80
1MB73-120MF	12	±20%	0.098	1.52	1.60
1MB73-150MF	15	±20%	0.130	1.33	1.40
1MB73-180MF	18	±20%	0.140	1.20	1.30
1MB73-220MF	22	±20%	0.190	1.07	1.20
1MB73-270MF	27	±20%	0.210	0.96	1.20
1MB73-330MF	33	±20%	0.240	0.91	1.10
1MB73-390MF	39	±20%	0.320	0.77	1.05
1MB73-470MF	47	±20%	0.360	0.76	1.00
1MB73-560MF	56	±20%	0.470	0.68	0.85
1MB73-680MF	68	±20%	0.520	0.61	0.75
1MB73-820MF	82	±20%	0.690	0.57	0.70
1MB73-101MF	100	±20%	0.790	0.50	0.65
1MB73-121MF	120	±20%	0.890	0.49	0.60
1MB73-151MF	150	±20%	1.270	0.43	0.50
1MB73-181MF	180	±20%	1.450	0.39	0.45
1MB73-221MF	220	±20%	1.650	0.35	0.42
1MB73-271MF	270	±20%	2.310	0.32	0.35
1MB73-331MF	330	±20%	2.620	0.28	0.32
1MB73-391MF	390	±20%	2.940	0.26	0.28
1MB73-471MF	470	±20%	4.180	0.24	0.27
1MB73-561MF	560	±20%	4.670	0.22	0.25
1MB73-681MF	680	±20%	5.730	0.19	0.22
1MB73-821MF	820	±20%	6.540	0.18	0.20
1MB73-102MF	1000	±20%	9.440	0.16	0.17
1MB74-1R0NF	1.0	±30%	0.020	5.00	7.50
1MB74-1R5NF	1.5	±30%	0.021	4.60	6.50
1MB74-2R2NF	2.2	±30%	0.025	4.40	5.50
1MB74-3R3NF	3.3	±30%	0.036	4.25	4.80
1MB74-4R7NF	4.7	±30%	0.039	3.05	3.50
1MB74-6R8NF	6.8	±30%	0.045	2.90	3.50
1MB74-100MF	10	±20%	0.049	2.00	2.40
1MB74-120MF	12	±20%	0.058	1.71	2.10
1MB74-150MF	15	±20%	0.081	1.47	1.80
1MB74-180MF	18	±20%	0.091	1.31	1.60
1MB74-220MF	22	±20%	0.110	1.23	1.50
1MB74-270MF	27	±20%	0.150	1.12	1.45
1MB74-330MF	33	±20%	0.170	0.96	1.30
1MB74-390MF	39	±20%	0.230	0.91	1.25
1MB74-470MF	47	±20%	0.260	0.88	1.10
1MB74-560MF	56	±20%	0.350	0.75	1.00
1MB74-680MF	68	±20%	0.380	0.69	0.85
1MB74-820MF	82	±20%	0.430	0.61	0.75
1MB74-101MF	100	±20%	0.610	0.60	0.72
1MB74-121MF	120	±20%	0.660	0.52	0.68
1MB74-151MF	150	±20%	0.880	0.46	0.60
1MB74-181MF	180	±20%	0.980	0.42	0.56
1MB74-221MF	220	±20%	1.170	0.36	0.50
1MB74-271MF	270	±20%	1.640	0.34	0.45
1MB74-331MF	330	±20%	1.860	0.32	0.42

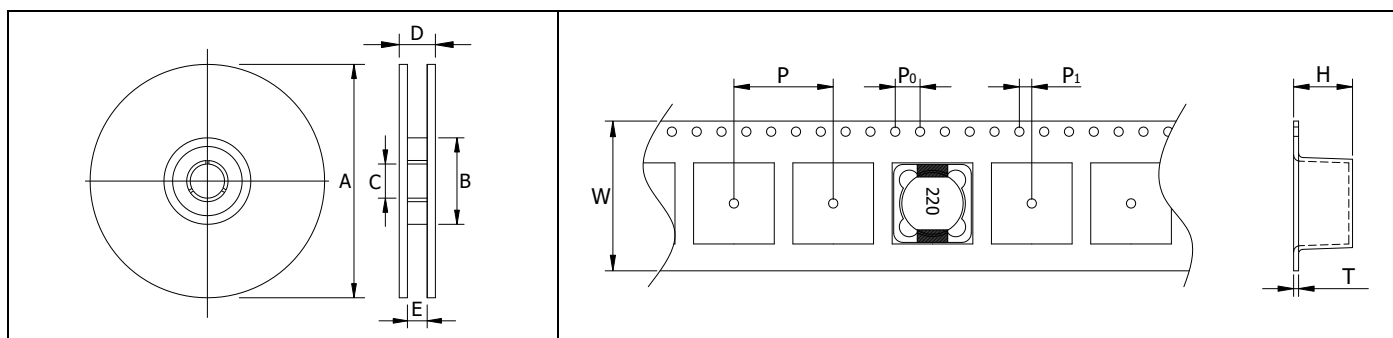
Inductance ¹			DCR ²		
Part Number	μH	Tolerance	Max.(Ω)	I _{rms} ³ (A)	I _{sat} ⁴ (A)
1MB74-391MF	390	±20%	2.850	0.29	0.38
1MB74-471MF	470	±20%	3.010	0.26	0.32
1MB74-561MF	560	±20%	3.620	0.23	0.28
1MB74-681MF	680	±20%	4.630	0.22	0.26
1MB74-821MF	820	±20%	5.200	0.20	0.24
1MB74-102MF	1000	±20%	6.000	0.18	0.22
1MB124-1R0NF	1.0	±30%	0.010	8.00	12.00
1MB124-2R2NF	2.2	±30%	0.014	4.90	8.50
1MB124-3R3NF	3.3	±30%	0.015	4.50	7.80
1MB124-4R7MF	4.7	±20%	0.018	5.70	6.70
1MB124-5R6MF	5.6	±20%	0.020	5.20	6.00
1MB124-6R8MF	6.8	±20%	0.023	4.90	5.50
1MB124-8R2MF	8.2	±20%	0.026	4.60	5.20
1MB124-100MF	10	±20%	0.028	4.50	5.00
1MB124-120MF	12	±20%	0.038	4.00	4.50
1MB124-150MF	15	±20%	0.050	3.20	3.70
1MB124-180MF	18	±20%	0.057	3.10	3.50
1MB124-220MF	22	±20%	0.066	2.90	3.30
1MB124-270MF	27	±20%	0.080	2.80	3.10
1MB124-330MF	33	±20%	0.097	2.70	3.00
1MB124-390MF	39	±20%	0.132	2.10	2.40
1MB124-470MF	47	±20%	0.160	1.90	2.20
1MB124-560MF	56	±20%	0.190	1.80	2.00
1MB124-680MF	68	±20%	0.220	1.50	1.70
1MB124-820MF	82	±20%	0.260	1.30	1.50
1MB124-101MF	100	±20%	0.310	1.20	1.30
1MB124-121MF	120	±20%	0.380	1.10	1.20
1MB124-151MF	150	±20%	0.530	0.95	1.05
1MB124-181MF	180	±20%	0.620	0.85	0.95
1MB124-221MF	220	±20%	0.700	0.80	0.90
1MB124-271MF	270	±20%	0.870	0.60	0.70
1MB124-331MF	330	±20%	0.990	0.50	0.60
1MB125-1R0NF	1.0	±30%	0.010	8.00	12.00
1MB125-2R2NF	2.2	±30%	0.014	7.80	10.00
1MB125-3R3NF	3.3	±30%	0.017	6.00	8.50
1MB125-4R7MF	4.7	±20%	0.020	5.60	7.50
1MB125-6R8MF	6.8	±20%	0.021	4.50	6.70
1MB125-8R2MF	8.2	±20%	0.024	4.30	6.20
1MB125-100MF	10	±20%	0.025	4.00	5.20
1MB125-120MF	12	±20%	0.027	3.50	4.50
1MB125-150MF	15	±20%	0.030	3.30	4.30
1MB125-180MF	18	±20%	0.034	3.00	3.80
1MB125-220MF	22	±20%	0.036	2.80	3.60
1MB125-270MF	27	±20%	0.051	2.30	3.00
1MB125-330MF	33	±20%	0.057	2.10	2.70
1MB125-390MF	39	±20%	0.068	2.00	2.50
1MB125-470MF	47	±20%	0.075	1.80	2.20
1MB125-560MF	56	±20%	0.110	1.70	2.10
1MB125-680MF	68	±20%	0.120	1.50	1.80
1MB125-820MF	82	±20%	0.140	1.40	1.65
1MB125-101MF	100	±20%	0.160	1.30	1.55
1MB125-121MF	120	±20%	0.170	1.10	1.30
1MB125-151MF	150	±20%	0.230	1.00	1.20
1MB125-181MF	180	±20%	0.290	0.90	1.10
1MB125-221MF	220	±20%	0.400	0.80	1.00
1MB125-271MF	270	±20%	0.460	0.75	0.90
1MB125-331MF	330	±20%	0.510	0.68	0.83

Inductance ¹			DCR ²		
Part Number	μH	Tolerance	Max.(Ω)	I _{rms} ³ (A)	I _{sat} ⁴ (A)
1MB125-391MF	390	±20%	0.690	0.65	0.80
1MB125-471MF	470	±20%	0.770	0.58	0.70
1MB125-561MF	560	±20%	0.860	0.54	0.65
1MB125-681MF	680	±20%	1.200	0.48	0.58
1MB125-821MF	820	±20%	1.340	0.43	0.52
1MB125-102MF	1000	±20%	1.530	0.40	0.50
1MB127-1R0NF	1.0	±30%	0.006	12.00	15.00
1MB127-2R2NF	2.2	±30%	0.012	8.00	11.00
1MB127-3R3NF	3.3	±20%	0.013	8.00	10.00
1MB127-4R7MF	4.7	±20%	0.016	6.80	8.80
1MB127-6R8MF	6.8	±20%	0.019	6.60	8.60
1MB127-8R2MF	8.2	±30%	0.020	5.60	7.50
1MB127-100MF	10	±20%	0.021	5.40	6.80
1MB127-120MF	12	±20%	0.024	4.90	6.20
1MB127-150MF	15	±20%	0.027	4.50	5.60
1MB127-180MF	18	±20%	0.039	3.90	4.90
1MB127-220MF	22	±20%	0.043	3.60	4.60
1MB127-270MF	27	±20%	0.046	3.40	3.80
1MB127-330MF	33	±20%	0.065	3.00	3.40
1MB127-390MF	39	±20%	0.073	2.75	3.10
1MB127-470MF	47	±20%	0.100	2.50	2.90
1MB127-560MF	56	±20%	0.110	2.35	2.70
1MB127-680MF	68	±20%	0.140	2.10	2.40
1MB127-820MF	82	±20%	0.160	1.95	2.10
1MB127-101MF	100	±20%	0.220	1.70	1.90
1MB127-121MF	120	±20%	0.250	1.60	1.80
1MB127-151MF	150	±20%	0.280	1.42	1.60
1MB127-181MF	180	±20%	0.350	1.30	1.45
1MB127-221MF	220	±20%	0.390	1.16	1.30
1MB127-271MF	270	±20%	0.560	1.06	1.16
1MB127-331MF	330	±20%	0.640	0.95	1.05
1MB127-391MF	390	±20%	0.700	0.88	0.95
1MB127-471MF	470	±20%	0.980	0.79	0.86
1MB127-561MF	560	±20%	1.070	0.73	0.78
1MB127-681MF	680	±20%	1.460	0.67	0.72
1MB127-821MF	820	±20%	1.640	0.60	0.65
1MB127-102MF	1000	±20%	1.820	0.55	0.60
1MB129-1R5NF	1.5	±30%	0.005	15.10	20.00
1MB129-2R2NF	2.2	±30%	0.008	10.30	15.30
1MB129-3R3NF	3.3	±30%	0.010	8.70	12.70
1MB129-4R7MF	4.7	±20%	0.011	8.40	11.40
1MB129-6R8MF	6.8	±20%	0.013	7.10	9.60
1MB129-100MF	10	±20%	0.018	6.60	8.60
1MB129-120MF	12	±20%	0.019	6.20	8.20
1MB129-150MF	15	±20%	0.026	5.22	7.22
1MB129-220MF	22	±20%	0.029	4.95	6.50
1MB129-330MF	33	±20%	0.053	3.60	5.00
1MB129-470MF	47	±20%	0.063	3.45	4.50
1MB129-560MF	56	±20%	0.068	2.95	3.70
1MB129-680MF	68	±20%	0.093	2.85	3.60
1MB129-820MF	82	±20%	0.099	2.60	3.40
1MB129-101MF	100	±20%	0.126	2.45	2.60
1MB129-121MF	120	±20%	0.154	2.20	2.60
1MB129-151MF	150	±20%	0.174	1.90	2.40
1MB129-181MF	180	±20%	0.191	1.86	2.30
1MB129-221MF	220	±20%	0.246	1.72	2.20
1MB129-331MF	330	±20%	0.386	1.28	1.60

Part Number	Inductance ¹		DCR ²		I _{rms} ³ (A)	I _{sat} ⁴ (A)
	μH	Tolerance	Max.(Ω)			
1MB129-471MF	470	±20%	0.471		1.25	1.45
1MB129-561MF	560	±20%	0.650		0.98	1.35
1MB129-681MF	680	±20%	0.730		0.96	1.25
1MB129-821MF	820	±20%	0.824		0.94	1.05
1MB129-102MF	1000	±20%	1.220		0.79	0.95
1MB129-122MF	1200	±20%	1.330		0.78	0.80
1MB129-152MF	1500	±20%	1.990		0.58	0.70
1MB129-182MF	1800	±20%	2.180		0.54	0.60
1MB129-222MF	2200	±20%	2.580		0.52	0.54

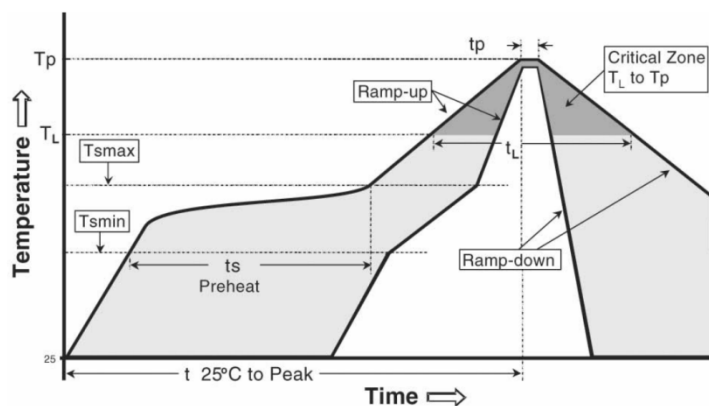
1. Inductance measured @ 100KHz, 0.3V at 25°C temperature.
2. DCR measured @ 25°C.
3. I_{rms}: DC current for an approximate 40°C rise from 20°C ambient temperature.
4. I_{sat}: DC current for approximate 25% roll off at 25°C.
5. Specifications subject to change without notice please check our website 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
1MB129	400	330	100	13	30	24.5	24	16	4	2	10.2	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 (Tsmin)	150°C
Temperature Max (Tsmax)	200°C
Time (Tsmin to Tsmax)(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.