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

HMSB 125 - 100 M F

❶ ❷ ❸ ❹ ❺

❶	Series
HMSB	Series Code

❷	Dimension Code (L*W*H) (mm)	
	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)	

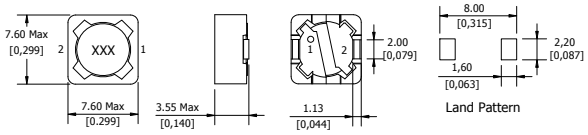
❸	Inductance Code
e.g.	Calculation
2R2	2.2μH
100	10×10^{0}μH = 10μH
101	10×10^{1}μH = 100μH

❹	Inductance Tolerance
K	±10%
M	±20%
N	±30%

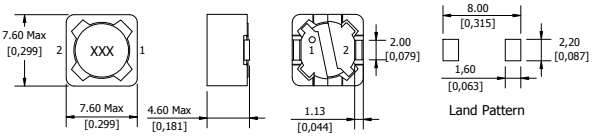
❺ RoHS Compliant

C DRAWINGS AND DIMENSIONS

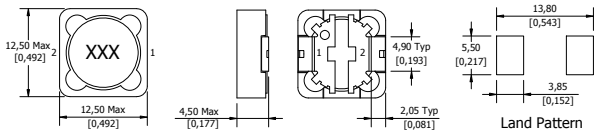
HMSB73



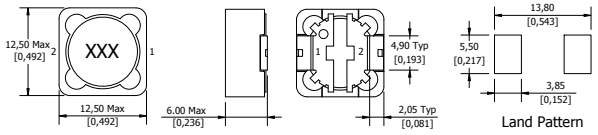
HMSB74



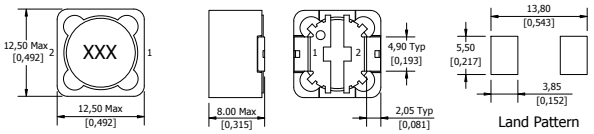
HMSB124



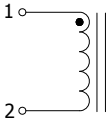
HMSB125



HMSB127



Schematics



D SPECIFICATIONS

Part Number	Inductance(μH)	Test Freq.	Tolerance	DCR[1] Max.(Ω)	I_{Rated}[2]
HMSB73-2R2NF	2.2	100KHz, 0.3V	±30%	0.025	5.52
HMSB73-3R3NF	3.3	100KHz, 0.3V	±30%	0.035	4.22
HMSB73-4R7NF	4.7	100KHz, 0.3V	±30%	0.031	3.00
HMSB73-100MF	10	1KHz, 0.3V	±20%	0.072	1.68
HMSB73-120MF	12	1KHz, 0.3V	±20%	0.098	1.52
HMSB73-150MF	15	1KHz, 0.3V	±20%	0.130	1.33
HMSB73-180MF	18	1KHz, 0.3V	±20%	0.140	1.20
HMSB73-220MF	22	1KHz, 0.3V	±20%	0.190	1.07
HMSB73-270MF	27	1KHz, 0.3V	±20%	0.210	0.96
HMSB73-330MF	33	1KHz, 0.3V	±20%	0.240	0.91
HMSB73-390MF	39	1KHz, 0.3V	±20%	0.320	0.77
HMSB73-470MF	47	1KHz, 0.3V	±20%	0.360	0.76
HMSB73-560MF	56	1KHz, 0.3V	±20%	0.470	0.68
HMSB73-680MF	68	1KHz, 0.3V	±20%	0.520	0.61
HMSB73-820MF	82	1KHz, 0.3V	±20%	0.690	0.57
HMSB73-101MF	100	1KHz, 0.3V	±20%	0.790	0.50
HMSB73-121MF	120	1KHz, 0.3V	±20%	0.890	0.49
HMSB73-151MF	150	1KHz, 0.3V	±20%	1.270	0.43
HMSB73-181MF	180	1KHz, 0.3V	±20%	1.450	0.39
HMSB73-221MF	220	1KHz, 0.3V	±20%	1.650	0.35
HMSB73-271MF	270	1KHz, 0.3V	±20%	2.310	0.32
HMSB73-331MF	330	1KHz, 0.3V	±20%	2.620	0.28
HMSB73-391MF	390	1KHz, 0.3V	±20%	2.940	0.26
HMSB73-471MF	470	1KHz, 0.3V	±20%	4.180	0.24
HMSB73-561MF	560	1KHz, 0.3V	±20%	4.670	0.22
HMSB73-681MF	680	1KHz, 0.3V	±20%	5.730	0.19
HMSB73-821MF	820	1KHz, 0.3V	±20%	6.540	0.18
HMSB73-102MF	1000	1KHz, 0.3V	±20%	9.440	0.16
HMSB74-100MF	10	1KHz, 0.3V	±20%	0.049	1.84
HMSB74-120MF	12	1KHz, 0.3V	±20%	0.058	1.71
HMSB74-150MF	15	1KHz, 0.3V	±20%	0.081	1.47
HMSB74-180MF	18	1KHz, 0.3V	±20%	0.091	1.31
HMSB74-220MF	22	1KHz, 0.3V	±20%	0.110	1.23
HMSB74-270MF	27	1KHz, 0.3V	±20%	0.150	1.12
HMSB74-330MF	33	1KHz, 0.3V	±20%	0.170	0.96
HMSB74-390MF	39	1KHz, 0.3V	±20%	0.230	0.91
HMSB74-470MF	47	1KHz, 0.3V	±20%	0.260	0.88
HMSB74-560MF	56	1KHz, 0.3V	±20%	0.350	0.75
HMSB74-680MF	68	1KHz, 0.3V	±20%	0.380	0.69
HMSB74-820MF	82	1KHz, 0.3V	±20%	0.430	0.61
HMSB74-101MF	100	1KHz, 0.3V	±20%	0.610	0.60
HMSB74-121MF	120	1KHz, 0.3V	±20%	0.660	0.52
HMSB74-151MF	150	1KHz, 0.3V	±20%	0.880	0.46

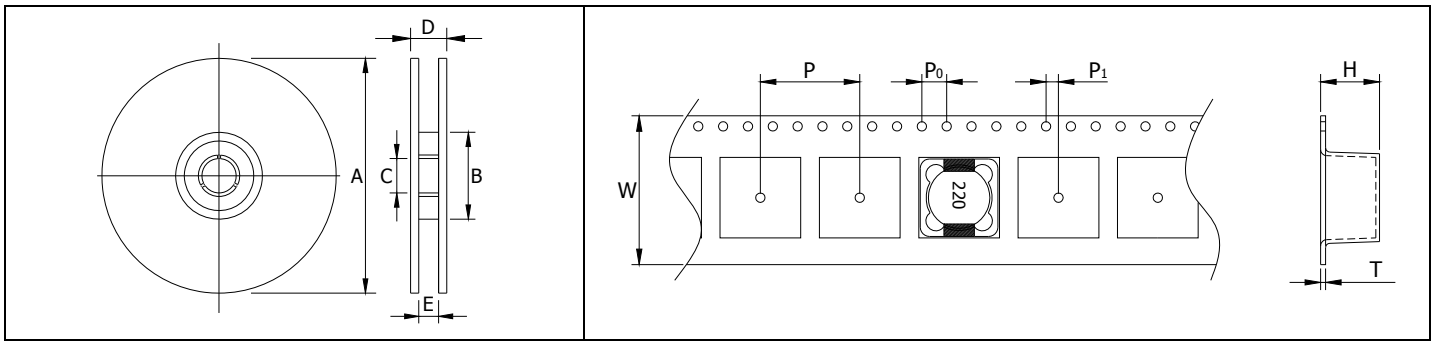
Part Number	Inductance(μH)	Test Freq.	Tolerance	DCR[1] Max.(Ω)	I_{Rated}[2]
HMSB74-181MF	180	1KHz, 0.3V	±20%	0.980	0.42
HMSB74-221MF	220	1KHz, 0.3V	±20%	1.170	0.36
HMSB74-271MF	270	1KHz, 0.3V	±20%	1.640	0.34
HMSB74-331MF	330	1KHz, 0.3V	±20%	1.860	0.32
HMSB74-391MF	390	1KHz, 0.3V	±20%	2.850	0.29
HMSB74-471MF	470	1KHz, 0.3V	±20%	3.010	0.26
HMSB74-561MF	560	1KHz, 0.3V	±20%	3.620	0.23
HMSB74-681MF	680	1KHz, 0.3V	±20%	4.630	0.22
HMSB74-821MF	820	1KHz, 0.3V	±20%	5.200	0.20
HMSB74-102MF	1000	1KHz, 0.3V	±20%	6.000	0.18
HMSB124-1R0NF	1.0	100KHz, 0.3V	±30%	0.010	8.00
HMSB124-2R2NF	2.2	100KHz, 0.3V	±30%	0.014	4.90
HMSB124-3R3NF	3.3	100KHz, 0.3V	±30%	0.015	4.50
HMSB124-4R7NF	4.7	100KHz, 0.3V	±30%	0.018	5.70
HMSB124-5R6NF	5.6	100KHz, 0.3V	±30%	0.020	5.20
HMSB124-6R8NF	6.8	100KHz, 0.3V	±30%	0.023	4.90
HMSB124-8R2NF	8.2	100KHz, 0.3V	±30%	0.026	4.60
HMSB124-100MF	10	1KHz, 0.3V	±20%	0.028	4.50
HMSB124-120MF	12	1KHz, 0.3V	±20%	0.038	4.00
HMSB124-150MF	15	1KHz, 0.3V	±20%	0.050	3.20
HMSB124-180MF	18	1KHz, 0.3V	±20%	0.057	3.10
HMSB124-220MF	22	1KHz, 0.3V	±20%	0.066	2.90
HMSB124-270MF	27	1KHz, 0.3V	±20%	0.080	2.80
HMSB124-330MF	33	1KHz, 0.3V	±20%	0.097	2.70
HMSB124-390MF	39	1KHz, 0.3V	±20%	0.132	2.10
HMSB124-470MF	47	1KHz, 0.3V	±20%	0.160	1.90
HMSB124-560MF	56	1KHz, 0.3V	±20%	0.190	1.80
HMSB124-680MF	68	1KHz, 0.3V	±20%	0.220	1.50
HMSB124-820MF	82	1KHz, 0.3V	±20%	0.260	1.30
HMSB124-101MF	100	1KHz, 0.3V	±20%	0.310	1.20
HMSB124-121MF	120	1KHz, 0.3V	±20%	0.380	1.10
HMSB124-151MF	150	1KHz, 0.3V	±20%	0.530	0.95
HMSB124-181MF	180	1KHz, 0.3V	±20%	0.620	0.85
HMSB124-221MF	220	1KHz, 0.3V	±20%	0.700	0.80
HMSB124-271MF	270	1KHz, 0.3V	±20%	0.870	0.60
HMSB124-331MF	330	1KHz, 0.3V	±20%	0.990	0.50
HMSB125-1R0NF	1.0	100KHz, 0.3V	±30%	0.010	8.00
HMSB125-2R2NF	2.2	100KHz, 0.3V	±30%	0.014	7.80
HMSB125-3R3NF	3.3	100KHz, 0.3V	±30%	0.014	8.00
HMSB125-8R2NF	8.2	100KHz, 0.3V	±30%	0.021	4.40
HMSB125-100MF	10	1KHz, 0.3V	±20%	0.025	4.00
HMSB125-120MF	12	1KHz, 0.3V	±20%	0.027	3.50
HMSB125-150MF	15	1KHz, 0.3V	±20%	0.030	3.30
HMSB125-180MF	18	1KHz, 0.3V	±20%	0.034	3.00
HMSB125-220MF	22	1KHz, 0.3V	±20%	0.036	2.80

Part Number	Inductance(μH)	Test Freq.	Tolerance	DCR[1] Max.(Ω)	I_{Rated}[2]
HMSB125-270MF	27	1KHz, 0.3V	±20%	0.051	2.30
HMSB125-330MF	33	1KHz, 0.3V	±20%	0.057	2.10
HMSB125-390MF	39	1KHz, 0.3V	±20%	0.068	2.00
HMSB125-470MF	47	1KHz, 0.3V	±20%	0.075	1.80
HMSB125-560MF	56	1KHz, 0.3V	±20%	0.110	1.70
HMSB125-680MF	68	1KHz, 0.3V	±20%	0.120	1.50
HMSB125-820MF	82	1KHz, 0.3V	±20%	0.140	1.40
HMSB125-101MF	100	1KHz, 0.3V	±20%	0.160	1.30
HMSB125-121MF	120	1KHz, 0.3V	±20%	0.170	1.10
HMSB125-151MF	150	1KHz, 0.3V	±20%	0.230	1.00
HMSB125-181MF	180	1KHz, 0.3V	±20%	0.290	0.90
HMSB125-221MF	220	1KHz, 0.3V	±20%	0.400	0.80
HMSB125-271MF	270	1KHz, 0.3V	±20%	0.460	0.75
HMSB125-331MF	330	1KHz, 0.3V	±20%	0.510	0.68
HMSB125-391MF	390	1KHz, 0.3V	±20%	0.690	0.65
HMSB125-471MF	470	1KHz, 0.3V	±20%	0.770	0.58
HMSB125-561MF	560	1KHz, 0.3V	±20%	0.860	0.54
HMSB125-681MF	680	1KHz, 0.3V	±20%	1.200	0.48
HMSB127-1R0NF	1.0	100KHz, 0.3V	±30%	0.006	12.00
HMSB127-2R2NF	2.2	100KHz, 0.3V	±30%	0.012	8.00
HMSB127-3R3NF	3.3	100KHz, 0.3V	±30%	0.013	8.00
HMSB127-4R7NF	4.7	100KHz, 0.3V	±30%	0.016	6.80
HMSB127-6R8NF	6.8	100KHz, 0.3V	±30%	0.019	6.60
HMSB127-8R2NF	8.2	100KHz, 0.3V	±30%	0.020	5.60
HMSB127-100MF	10	1KHz, 0.3V	±20%	0.021	5.40
HMSB127-120MF	12	1KHz, 0.3V	±20%	0.024	4.90
HMSB127-150MF	15	1KHz, 0.3V	±20%	0.027	4.50
HMSB127-180MF	18	1KHz, 0.3V	±20%	0.039	3.90
HMSB127-220MF	22	1KHz, 0.3V	±20%	0.043	3.60
HMSB127-270MF	27	1KHz, 0.3V	±20%	0.046	3.40
HMSB127-330MF	33	1KHz, 0.3V	±20%	0.065	3.00
HMSB127-390MF	39	1KHz, 0.3V	±20%	0.073	2.75
HMSB127-470MF	47	1KHz, 0.3V	±20%	0.100	2.50
HMSB127-560MF	56	1KHz, 0.3V	±20%	0.110	2.35
HMSB127-680MF	68	1KHz, 0.3V	±20%	0.140	2.10
HMSB127-820MF	82	1KHz, 0.3V	±20%	0.160	1.95
HMSB127-101MF	100	1KHz, 0.3V	±20%	0.220	1.70
HMSB127-121MF	120	1KHz, 0.3V	±20%	0.250	1.60
HMSB127-151MF	150	1KHz, 0.3V	±20%	0.280	1.42
HMSB127-181MF	180	1KHz, 0.3V	±20%	0.350	1.30
HMSB127-221MF	220	1KHz, 0.3V	±20%	0.390	1.16
HMSB127-271MF	270	1KHz, 0.3V	±20%	0.560	1.06
HMSB127-331MF	330	1KHz, 0.3V	±20%	0.640	0.95
HMSB127-391MF	390	1KHz, 0.3V	±20%	0.700	0.88
HMSB127-471MF	470	1KHz, 0.3V	±20%	0.980	0.79

Part Number	Inductance(μH)	Test Freq.	Tolerance	DCR[1] Max.(Ω)	I_{Rated}[2]
HMSB127-561MF	560	1KHz, 0.3V	±20%	1.070	0.73
HMSB127-681MF	680	1KHz, 0.3V	±20%	1.460	0.67
HMSB127-821MF	820	1KHz, 0.3V	±20%	1.640	0.60
HMSB127-102MF	1000	1KHz, 0.3V	±20%	1.820	0.55

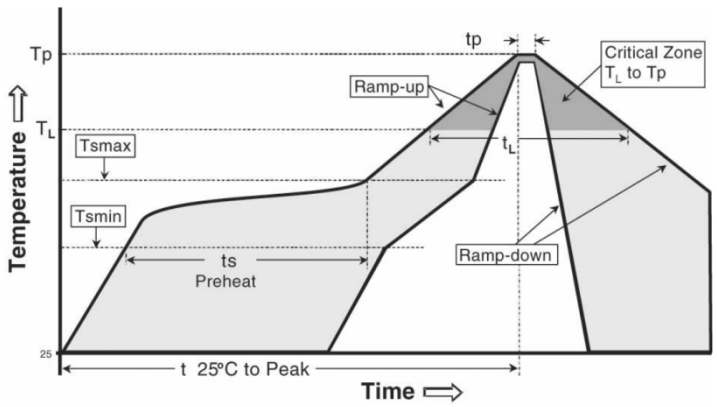
1. DCR measured @ 25°C.
2. I_{Rated}=Min(Irms,Isat); Irms based on 40℃ rise from 20°C ambient, Isat based on 25% inductance drop.
3. Specifications subject to change without notice please check our website for latest information.

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	P1	H	T
HMSB73	1000	330	100	13	22.5	16.5	16	12	4	2	3.8	0.4
HMSB74	1000	330	100	13	22.5	16.5	16	12	4	2	4.7	0.4
HMSB124	500	330	100	13	30	24.5	24	16	4	2	4.9	0.45
HMSB125	500	330	100	13	30	24.5	24	16	4	2	6.2	0.45
HMSB127	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 (Ts_{min}) Temperature Max (Ts_{max}) Time (Ts_{min} to Ts_{max})(ts)	 100˚C 150˚C 60-180 seconds
Time maintained above: Temperature (T_L) Time (t_L)	 217˚C 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.