HITANO
ENTERPRISE CORP. ®

Data Sheet

Customer :

Product : Conductive Polymer Aluminum Solid Electrolytic Capacitor
SMD Type, Standard, 105℃ 2,000Hours – HMB Series

Size : 6.3x6mm ~ 10x12.8mm

Issued Date : 01-Sep.-2025

Edition : Ver.1

Record of change

Date	Ver.	Description	Page

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01-Sep.-2025	01-Sep.-2025	01-Sep.-2025	
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HITANO ENTERPRISE CORP. ®

HMB SERIES

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

SMD type, Standard

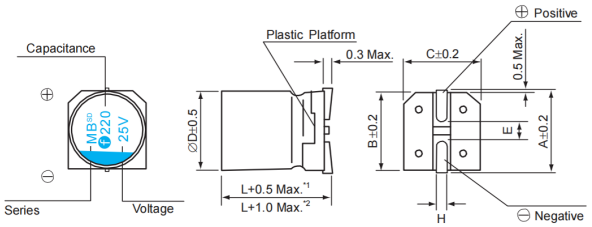
- Low ESR & high ripple current capability
- Endurance: 2,000 hours at 105℃
- Rated Voltage：2.5V ~ 50V
- Rated capacitance：22 ~ 3,900 μF

■SPECIFICATIONS

Item	Performance Characteristics	
Operating Temperature range	-55 + 105℃	
Rated Voltage Range	2.5V ~ 50V	
Capacitance Tolerance	± 20% (at 120 Hz/ 20℃)	
Surge Voltage	Rated Voltage x 1.15	
Leakage Current	Within the specified value as in standard rating	
Dissipation Factor (tan δ)	0.12 or less, less than or equal to the specified value at 20℃ and 120Hz	
Temperature Characteristics (Impedance ratio at 100 KHz)	Z (-25℃) / Z (+20℃)	≤ 1.15
	Z (-55℃) / Z (+20℃)	≤ 1.25
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 2,000 hours at 105℃.	
	Capacitance change	≤ ± 20% of the initial value
	D. F. (Tan δ)	≤ 150% of initial specified value
	ESR	≤ 150% of initial specified value
	Leakage current	Initial specified value or less
Bias Humidity Test	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them at 60℃, 90 to 95% RH for 1,000 hours.	
	Capacitance change	≤ ± 20% of the initial value
	D. F. (Tan δ)	≤ 150% of initial specified value
	ESR	≤ 150% of initial specified value
	Leakage current	Initial specified value or less
Surge Voltage Test	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltage specified At 105℃ for 30 seconds through a protective resistor (R=1KΩ) and discharge for 5 minutes 30 seconds.	
	Capacitance change	≤ ± 20% of the initial value
	D. F. (Tan δ)	≤ 150% of initial specified value
	ESR	≤ 150% of initial specified value
	Leakage current	Initial specified value or less
Failure Rate	0.5% per 1,000 hours maximum (Confidence level 60% at 105℃)	

※ In case of any doubt arises, measure the leakage current after voltage applied for 120 minutes at 105℃.

■ Dimension



ØD	L	A	B	C	H	E
6.3	6.0	6.6	6.6	7.3	0.5~0.8	2.1
6.3	7.7	6.6	6.6	7.3	0.5~0.8	2.1
8	10.0	8.3	8.3	9	0.8~1.1	3.2
8	12.5	8.3	8.3	9	0.8~1.1	3.2
10	10.5	10.3	10.3	11	0.8~1.1	4.6
10	12.8	10.3	10.3	11	0.8~1.1	4.6

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

■ Part Numbering (example: 150 µF 16V 6.3x6.0mm)

H M B	1 5 1	M	1 C	C	R	C	0 6 0	B
SERIES	CAPACITANCE	TOL.	W.V.	TYPE	LEAD	DIA.	LENGTH	PRINTING COLOR

■ Standard Products Table

Rated voltage (V.DC)	Rated Capacitance (µF)	Case Size D x L (mm)	tan δ	Leakage Current (µA)	ESR (mΩ max./ 20℃ 100KHz to 300KHz)	Rated ripple current (m rms/105℃,100KHz)
2.5 (0E)	560	6.3 x 6	0.12	280	20	2,900
	680	6.3 x 7.7	0.12	340	13	3,600
	1200	8 x 10	0.12	600	10	5,220
	1500	8 x 12.5	0.12	750	9	5,400
	2700	10 x 10.5	0.12	1,350	12	4,700
	3900	10 x 12.8	0.12	1,950	10	5,600
4 (0G)	390	6.3 x 6	0.12	312	22	2,700
	470	6.3 x 7.7	0.12	376	14	3,470
	1000	8 x 10	0.12	800	10	5,220
	1200	8 x 12.5	0.12	960	12	4,700
	2200	10 x 10.5	0.12	1,760	13	4,600
	3300	10 x 12.8	0.12	2,640	11	5,400
6.3 (0J)	330	6.3 x 6	0.12	415	23	2,600
	470	6.3 x 7.7	0.12	592	14	3,470
	820	8 x 10	0.12	1,033	12	4,770
	1000	8 x 12.5	0.12	1,260	10	5,150
	1500	10 x 10.5	0.12	1,890	12	5,025
	2200	10 x 12.8	0.12	2,772	12	5,000
10 (1A)	220	6.3 x 6	0.12	440	20	2,700
	270	6.3 x 7.7	0.12	540	19	3,100
	390	8 x 10	0.12	780	17	4,000
	470	8 x 12.5	0.12	940	14	4,000
	1000	10 x 10.5	0.12	2,000	15	4,300
	1200	10 x 12.8	0.12	2,400	13	4,800
16 (1C)	150	6.3 x 6	0.12	480	30	2,400
	220	6.3 x 7.7	0.12	704	24	2,700
	470	8 x 10	0.12	1,504	18	3,890
	820	8 x 12.5	0.12	2,624	16	4,070
		10 x 10.5	0.12	2,624	20	3,700
	1000	10 x 12.8	0.12	3,200	18	4,200

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

■ Standard Products Table

Rated voltage (V.DC)	Rated Capacitance (μF)	Case Size D x L (mm)	tan δ	Leakage Current (μA)	ESR (mΩ max./ 20℃ 100KHz to 300KHz)	Rated ripple current (m rms/105℃,100KHz)
25 (1E)	68	6.3 x 6	0.12	340	49	1,300
	100	6.3 x 7.7	0.12	500	38	2,200
	150	8 x 10	0.12	750	23	3,600
	220	8 x 12.5	0.12	1,100	22	3,800
	330	10 x 10.5	0.12	1,650	23	3,700
	470	10 x 12.8	0.12	2,350	21	4,200
35 (1V)	47	6.3 x 6	0.12	329	50	1,300
	68	6.3 x 7.7	0.12	476	40	2,000
	120	8 x 10	0.12	840	24	3,600
	150	8 x 12.5	0.12	1,050	23	3,800
	220	10 x 10.5	0.12	1,540	24	3,700
	330	10 x 12.8	0.12	2,310	22	4,100
50 (1H)	22	6.3 x 6	0.12	220	55	1,200
	33	6.3 x 7.7	0.12	330	45	1,800
	68	8 x 10	0.12	680	29	3,300
	100	8 x 12.5	0.12	1,000	27	3,600
	100	10 x 10.5	0.12	1,000	29	3,400
	220	10 x 12.8	0.12	2,200	27	3,600

■ Frequency coefficient of allowable ripple current

Frequency	120 Hz ≤ f < 1 KHz	1 KHz ≤ f < 10 KHz	10 KHz ≤ f < 100 KHz	100 KHz ≤ f ≤ 300 KHz
Coefficient	0.05	0.30	0.70	1.00