HITANO
ENTERPRISE CORP. ®

Data Sheet

Customer :

Product : Conductive Polymer Aluminum Solid Electrolytic Capacitor
SMD Type, Standard, 105℃ 5,000Hours – HMV 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. ®

HMV SERIES

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

SMD type, Standard 5,000 hours

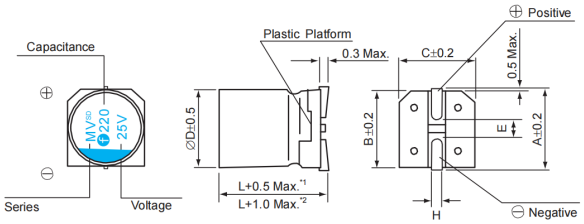
- Low ESR & high ripple current capability
- Endurance: 5,000 hours at 105℃
- Rated Voltage：2.5V ~ 50V
- Rated capacitance：15 ~ 3,900 μF

■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 5,000 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: 47 µF 50V 8x10mm)

H M V	4 7 0	M	1 H	C	R	D	1 0 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	17	2,740
	680	6.3 x 7.7	0.12	340	10	4,100
	1200	8 x 10	0.12	600	8	5,830
	2700	10 x 10.5	0.12	1,350	9	5,420
	3900	10 x 12.8	0.12	1,950	8	6,400
4 (0G)	390	6.3 x 6	0.12	312	18	2,980
	470	6.3 x 7.7	0.12	376	12	3,740
	1000	8 x 10	0.12	800	10	5,180
	2200	10 x 10.5	0.12	1,760	8	5,700
	3300	10 x 12.8	0.12	2,640	9	6,100
6.3 (0J)	330	6.3 x 6	0.12	415	19	2,860
	470	6.3 x 7.7	0.12	592	11	3,500
	820	8 x 10	0.12	1,033	10	4,900
	1500	10 x 10.5	0.12	1,890	9	5,600
	2200	10 x 12.8	0.12	2,772	9	5,800
10 (1C)	220	6.3 x 6	0.12	440	17	2,700
	270	6.3 x 7.7	0.12	540	15	3,320
	560	8 x 10	0.12	1,120	14	4,550
	820	8 x 12.5	0.12	1,640	11	4,800
	1000	10 x 10.5	0.12	2,000	12	4,800
	1200	10 x 12.8	0.12	2,400	11	5,300
16 (1C)	150	6.3 x 6	0.12	480	25	2,560
	220	6.3 x 7.7	0.12	704	19	3,150
	470	8 x 10	0.12	1,504	15	4,270
	820	8 x 12.5	0.12	2,624	13	4,400
		10 x 10.5	0.12	2,624	16	4,200
	1000	10 x 12.8	0.12	3,200	14	4,800
25 (1E)	68	6.3 x 6	0.12	340	30	2,430
	100	6.3 x 7.7	0.12	500	28	2,950
	150	8 x 10	0.12	750	21	4,050
	220	8 x 12.5	0.12	1,100	16	4,200
	330	10 x 10.5	0.12	1,650	15	4,000
	470	10 x 12.8	0.12	2,350	14	4,560
35 (1V)	47	6.3 x 6	0.12	329	35	2,300
	68	6.3 x 7.7	0.12	476	34	2,700
	120	8 x 10	0.12	840	21	3,600
	150	8 x 12.5	0.12	1,050	19	3,950
	220	10 x 10.5	0.12	1,540	21	3,800
	330	10 x 12.8	0.12	2,310	18	4,300
50 (1H)	15	6.3 x 6	0.12	150	40	2,100
	22	6.3 x 7.7	0.12	220	32	2,300
	47	8 x 10	0.12	470	25	2,800
	68	8 x 12.5	0.12	680	23	3,600
	82	10 x 10.5	0.12	820	23	3,600
	100	10 x 12.8	0.12	1,000	20	4,100

■ 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