HITANO
ENTERPRISE CORP. ®

Data Sheet

Customer :

Product : Conductive Polymer Hybrid Aluminum Electrolytic Capacitors
SMD Type, Long Life, 105℃ 10,000Hours – HHMV Series

Size : 6.3x6mm ~ 10x10.5mm

Issued Date : 01-Sep.-2025

Edition : Ver.1

Record of change

Date	Ver.	Description	Page

HITANO ENTERPRISE CORP.

7F-7, No. 3, Wu Chuan 1st Road, New Taipei Industrial Park,
New Taipei City, TAIWAN, R.O.C.
Tel: +886 2 2299 1331 (Rep.)
Fax: +886 2 2298 2466, 2298 2969

Prepared by	Checked by	Approved by	Accepted by (customer)
01-Sep.-2025	01-Sep.-2025	01-Sep.-2025	
Randy Yu	***Michelle Lin***	***Arthur Su***	

HITANO ENTERPRISE CORP. ®

HHMV SERIES

CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

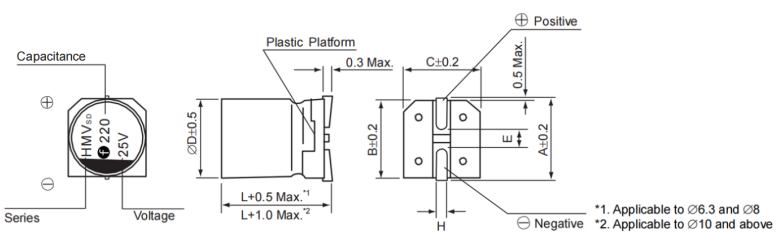
SMD Type, 105℃, Long Life

- High reliability and high voltage realized by hybrid electrolyte
- Endurance: 10,000 hours at 105℃
- Rated Voltage：25V ~ 80V
- Rated capacitance：10 ~ 330 μF
- For high temperature & reliability applications.

■SPECIFICATIONS

Item	Performance Characteristics
Operating Temperature range	-55 + 105℃
Rated Voltage Range	25V ~ 80V
Capacitance Tolerance	± 20% (at 120 Hz/ 20℃)
Leakage Current	I ≦ 0.01 CV or less (2 minutes , 20℃) Not greater than the formula above after 2 minutes voltage applied. I： Leakage current (μA) C： Capacitance (μF) V： Voltage(VDC)
Dissipation Factor (tan δ)	Rated voltage(V) 25 35 50 63 80 ; tan δ (Max.) 0.14 0.12 0.10 0.08 0.08 ; (20℃ · 120 Hz)
Temperature Characteristics (Impedance ratio at 100 KHz)	Z (-25℃)/ Z (+20℃) < 2.0 Z (-55℃)/ Z (+20℃) < 2.5
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 10,000 hours at 105℃. Capacitance change: ≤ ± 30% of the initial value D. F. (Tan δ): ≤ 200% of initial specified value ESR: ≤ 200% of initial specified value Leakage current: Initial specified value or less
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. Capacitance change: ≤ ± 30% of the initial value D. F. (Tan δ): ≤ 200% of initial specified value ESR: ≤ 200% 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 to the DC rated voltage at 85℃, 85% RH for 2,000 hours. Capacitance change: ≤ ± 30% of the initial value D. F. (Tan δ): ≤ 200% of initial specified value ESR: ≤ 200% of initial specified value Leakage current: Initial specified value or less Appearance: No significant damage
Resistance to Soldering heat	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the soldering. Capacitance change: ≤ ± 10% of the initial value D. F. (Tan δ): ≤ the initial specified value Leakage current: ≤ the initial specified value

■ Dimension



ØD	L	A	B	C	H	E
6.3	6.0	6.6	6.6	7.2	0.5~0.8	1.9
6.3	7.7	6.6	6.6	7.2	0.5~0.8	1.9
8	10.0	8.3	8.3	9	0.7~1.1	3.1
10	10.5	10.3	10.3	11	0.7~1.1	4.5

CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

■ Part Numbering (example: 220 µF 25V 8x10mm)

H H M V	2 2 1	M	1 E	C	R	D	1 0 0	S
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	ESR (mΩ max. 20℃/100 KHz)	Rated ripple current (mArms/105℃,100KHz)
25 (1E)	47	6.3 x 6	0.14	48	1,350
	56	6.3 x 6	0.14	48	1,350
	68	6.3 x 7.7	0.14	29	2,100
	100	6.3 x 7.7	0.14	29	2,100
	150	8 x 10	0.14	26	2,400
	220	8 x 10	0.14	26	2,400
	330	10 x 10.5	0.14	20	2,500
35 (1V)	27	6.3 x 6	0.12	60	1,250
	33	6.3 x 6	0.12	60	1,250
	47	6.3 x 6	0.12	60	1,250
	68	6.3 x 7.7	0.12	35	2,000
	100	8 x 10	0.12	26	2,400
	150	8 x 10	0.12	26	2,400
	220	10 x 10.5	0.12	20	2,500
	270	10 x 10.5	0.12	20	2,500
50 (1H)	10	6.3 x 6	0.10	12	720
	22	6.3 x 6	0.10	75	1,100
	33	6.3 x 7.7	0.10	40	1,600
	47	8 x 10	0.10	28	1,850
	68	8 x 10	0.10	28	1,850
	100	10 x 10.5	0.10	26	2,000
63 (1J)	10	6.3 x 6	0.08	120	1,000
	22	6.3 x 7.7	0.08	75	1,550
	33	8 x 10	0.08	38	1,750
	47	8 x 10	0.08	38	1,750
	56	10 x 10.5	0.08	29	1,820
	68	10 x 10.5	0.08	29	1,820
	82	10 x 10.5	0.08	29	1,820
80 (1K)	22	8 x 10	0.08	43	1,500
	33	10 x 10.5	0.08	35	1,700

■ 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	0.10	0.40	0.70	1.00