HITANO
ENTERPRISE CORP. ®

Data Sheet

Customer :

Product : Conductive Polymer Aluminum Solid Electrolytic Capacitor
SMD Type, High Temperature, 135℃ 2,000Hours – HMG Series

Size : 8x10mm ~ 10x12.8mm

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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. ®

HMG SERIES

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

SMD type, 135℃ High Temperature

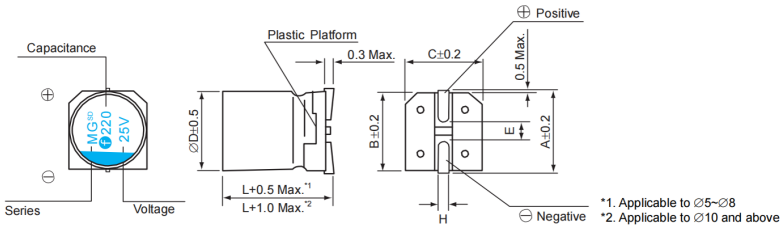
- Voltage up to 63V, Low ESR & high ripple current capability
- Endurance: 2,000 hours at 135℃
- Rated Voltage：25V ~ 63V
- Rated capacitance：39 ~ 470 μF

■SPECIFICATIONS

Item	Performance Characteristics	
Operating Temperature range	-55 + 135℃	
Rated Voltage Range	25V ~ 63V	
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 135℃.	
	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 135℃)	

※ In case of any doubt arises, measure the leakage current after voltage applied for 120 minutes at 135℃.

■ Dimension



ØD	L	A	B	C	H	E
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 35V 8x10mm)

H M G	1 5 1	M	1 V	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 (mA rms/135℃,100KHz)
25 (1E)	220	8 x 10	0.12	1,100	20	2,300
	270	8 x 12.5	0.12	1,350	18	2,400
	330	10 x 10.5	0.12	1,650	20	2,200
	470	10 x 12.8	0.12	2,350	15	2,900
35 (1V)	150	8 x 10	0.12	1,050	22	2,200
	220	8 x 12.5	0.12	1,540	20	2,400
	270	10 x 10.5	0.12	1,890	20	2,200
	330	10 x 12.8	0.12	2,310	17	2,700
50 (1H)	82	8 x 10	0.12	820	26	2,100
	120	8 x 12.5	0.12	1,200	24	2,300
		10 x 10.5	0.12	1,200	25	2,100
	180	10 x 12.8	0.12	1,800	18	2,600
63 (1J)	39	8 x 10	0.12	491	28	1,900
	56	8 x 12.5	0.12	705	26	2,200
	68	10 x 10.5	0.12	856	28	2,000
	100	10 x 12.8	0.12	1,260	24	2,100

■ 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