

Data Sheet

Customer : _____

Product : Conductive Polymer Aluminum Solid Electrolytic Capacitor
SMD Type, Standard, 125°C 2,000Hours – HMR_ 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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CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

SMD type, 125°C Standard

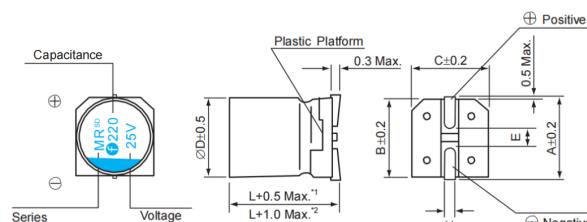
- Low ESR & high ripple current capability
- Endurance: 2,000 hours at 125°C
- Rated Voltage : 16V ~ 50V
- Rated capacitance : 22 ~ 1,000 μF

SPECIFICATIONS

Item	Performance Characteristics	
Operating Temperature range	-55 + 125°C	
Rated Voltage Range	16V ~ 50V	
Capacitance Tolerance	± 20% (at 120 Hz/ 20°C)	
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°C and 120Hz	
Temperature Characteristics (Impedance ratio at 100 KHz)	Z (-25°C) / Z (+20°C)	≤ 1.15
	Z (-55°C) / Z (+20°C)	≤ 1.25
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours at 105°C.	
	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°C after subjecting them at 60°C, 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°C 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°C)	

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

Dimension



ϕD	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: 100 μ F 16V 6.3x6.0mm)

HMR 101 M 1C C R C 060 B
 SERIES CAPACITANCE TOL. W.V. TYPE LEAD DIA. LENGTH PRINTING COLOR

■ Standard Products Table

Rated voltage (V.DC)	Rated Capacitance (μ F)	Case Size D x L (mm)	tan δ	Leakage Current (μ A)	ESR (m Ω max./ 20°C 100KHz to 300KHz)	Rated ripple current (mA rms, 100KHz)	
						Tx $\leq$ 105°C	105°C < Tx $\leq$ 125°C
16 (1C)	100	6.3 x 6	0.10	320	24	2,500	780
	220	6.3 x 7.7	0.10	704	33	2,800	880
	470	8 x 10	0.10	1,504	17	3,520	1,100
	680	8 x 12.5	0.10	2,176	16	4,000	1,250
		10 x 10.5	0.10	2,176	19	4,350	1,360
	1000	10 x 12.8	0.10	3,200	12	4,640	1,450
25 (1E)	47	6.3 x 6	0.10	235	43	2,140	670
	100	6.3 x 7.7	0.10	500	35	2,400	760
	220	8 x 10	0.10	1,100	30	3,200	1,000
	330	8 x 12.5	0.10	1,650	22	3,680	1,150
	470	10 x 10.5	0.10	2,350	20	4,000	1,250
	680	10 x 12.8	0.10	3,400	18	4,320	1,350
35 (1V)	39	6.3 x 6	0.10	273	48	1,920	600
	68	6.3 x 7.7	0.10	476	45	2,140	670
	120	8 x 10	0.10	840	35	2,880	900
	180	8 x 12.5	0.10	1,260	33	3,200	1,000
	220	10 x 10.5	0.10	1,540	25	3,680	1,150
	330	10 x 12.8	0.10	2,310	29	3,840	1,200
50 (1H)	22	6.3 x 6	0.10	220	80	1,630	510
	33	6.3 x 7.7	0.10	330	65	1,850	580
	47	8 x 10	0.10	470	37	2,400	750
	68	8 x 12.5	0.10	680	35	2,250	850
	100	10 x 10.5	0.10	1,000	31	2,880	900
	180	10 x 12.8	0.10	1,800	25	3,320	1,040

■ Frequency coefficient of allowable ripple current

Frequency	120 Hz $\leq$ f < 1 KHz	1 KHz $\leq$ f < 10 KHz	10 KHz $\leq$ f < 100 KHz	100 KHz $\leq$ f $\leq$ 300 KHz
Coefficient	0.05	0.30	0.70	1.00