Hongda Capacitors®
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CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

HMR Series

CHIP TYPE,125℃ HIGH TEMPERATURE

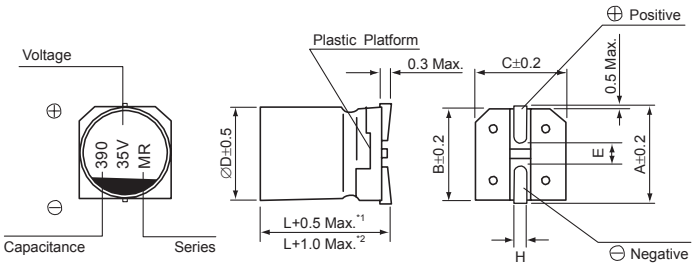
Operating with wide temperature range -55~+125°C
Low ESR, high ripple current
Endurance 2000 hours
RoHS & REACH compliant, Halogen-free

SPECIFICATIONS

Items	Characteristics
Operation Temperature Range	-55 ~ +125°C
Voltage Range	16 ~ 50V
Capacitance Range	22 ~ 1000μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	≤Specified value (after 2 minutes application of rated voltage at 20°C).
Dissipation Factor (tan δ)	≤Specified value at 120Hz, 20°C.
ESR (*2)	≤Specified value at 100KHz, 20°C.
Stability at Low Temperature	Measurement frequency : 100KHz Impedance Ratio ZT/Z20 (max.): Z(+125°C)/Z(20°C) ≤1.15; Z(-55°C)/Z(20°C) ≤1.25
Damp Heat (Steady State)	When the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 60°C, 90% RH, they meet the characteristics listed below. Capacitance Change: Within ±20% of initial value Dissipation Factor: 150% or less of initial specified value ESR (*2): 150% or less of initial specified value Leakage Current: Initial specified value or less
Endurance	When the capacitors are restored to 20°C after 2000 hours application of the rated voltage at 125°C, they meet the characteristics listed below. Capacitance Change: Within ±20% of initial value Dissipation Factor: 150% or less of initial specified value ESR (*2): 150% or less of initial specified value Leakage Current: Initial specified value or less
Resistance to Soldering Heat	After reflow soldering and restored at room temperature, they meet the characteristics listed below. Capacitance Change: Within ±10% of initial value Dissipation Factor: 130% or less of initial specified value ESR (*2): 130% or less of initial specified value Leakage Current: Initial specified value or less
Marking	Red print on the case top.

(*1) If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.
(*2) Should be measured at both of the terminal ends closest where the terminals protrude through the plastic platform.
(*3) The value before test of examination of resistance to soldering.

DRAWING (Unit: mm)



*1. Applicable to ∅5~∅8
*2. Applicable to ∅10 and above

DIMENSIONS (Unit: mm)

ØD × L	6.3 × 6	6.3 × 7.7	8 × 10	8 × 12.5	10 × 10.5	10 × 12.8
A	7.3	7.3	9.0	9.0	11.0	11.0
B	6.6	6.6	8.3	8.3	10.3	10.3
C	6.6	6.6	8.3	8.3	10.3	10.3
E	2.1	2.1	3.2	3.2	4.6	4.6
L	6.0	7.7	10.0	12.5	10.5	12.8
H	0.5~0.8	0.5~0.8	0.8~1.2	0.8~1.2	0.8~1.2	0.8~1.2

☐ DIMENSIONS & STANDARD RATINGS

WV (V) / Parameter / Cap. (μF)		16 (1C)						25 (1E)					
		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100K~300KHz	Ripple current (mA rms, 100KHz)		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100K~300KHz	Ripple current (mA rms, 100KHz)	
						≤105°C	105°C≤125°C					≤105°C	105°C≤125°C
47	470							6.3 × 6	0.10	235	43	2140	670
100	101	6.3 × 6	0.10	320	24	2500	780	6.3 × 7.7	0.10	500	35	2400	760
220	221	6.3 × 7.7	0.10	704	33	2800	880	8 × 10	0.10	1100	30	3200	1000
270	271	8 × 10	0.10	1350	30	3200	1000	8 × 10	0.10	1350	30	3200	1000
330	331	8 × 10	0.10	1504	17	3520	1100	8 × 12.5	0.10	1650	22	3680	1150
470	471	8 × 12.5	0.10	2176	16	4000	1250	10 × 10.5	0.10	2350	20	4000	1250
680	681	10 × 10.5	0.10	2176	19	4350	1360	10 × 12.8	0.10	3400	18	4320	1350
1000	102	10 × 12.8	0.10	3200	12	4640	1450						

WV (V) / Parameter / Cap. (μF)		35 (1V)						50 (1H)					
		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100K~300KHz	Ripple current (mA rms, 100KHz)		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100K~300KHz	Ripple current (mA rms, 100KHz)	
						≤105°C	105°C≤125°C					≤105°C	105°C≤125°C
22	220							6.3 × 6	0.10	220	80	1630	510
33	330							6.3 × 7.7	0.10	330	65	1850	580
39	390	6.3 × 6	0.10	273	48	1920	600						
47	470							8 × 10	0.10	470	37	2400	750
68	680	6.3 × 7.7	0.10	476	45	2140	670	8 × 12.5	0.10	680	35	2250	850
100	101							10 × 10.5	0.10	1000	31	2880	900
120	121	8 × 10	0.10	840	35	2880	900						
180	181	8 × 12.5	0.10	1260	33	3200	1000	10 × 12.8	0.10	1800	25	3320	1040
220	221	10 × 10.5	0.10	1540	25	3680	1150						
330	331	10 × 12.8	0.10	2310	29	3840	1200						

☐ FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Frequency	120Hz ≤ f ≤ 1KHz	1KHz ≤ f ≤ 10KHz	10KHz ≤ f ≤ 100KHz	100KHz ≤ f ≤ 300KHz
Coefficient	0.50	0.30	0.70	1.00

◆ How to order

HMR	106	M	0035	0607	R	-
↓	↓	↓	↓	↓	↓	↓
Type	Capacitance code	Tolerance	Rated Voltage	Size Code	Package	Additional characters may be added for special requirements
HMR	pF Code: 1st two digits represent significant figures 3rd digit represents mulitplier (number of zeros to follow) 106= 10uF 107= 100uF	M: +/-20%	Code 0035: 35VDC For DC Voltage 0006: 6.3VDC 0035: 35VDC 0450: 450VDC	Code 0607: Size 6.3x7.7mm Size for V-chip E-cap 0607: Size 6.3x7.7mm 1010: Size 10x10mm	R: Tape & Reel	

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