Hongda Capacitors®
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CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

HMV Series

CHIP TYPE, HIGH VOLTAGE/LONG LIFE



Operating with wide temperature range -55~+105°C

High voltage, low ESR, high ripple current

Load life of 5000 hours

RoHS & REACH compliant, Halogen-free

SPECIFICATIONS

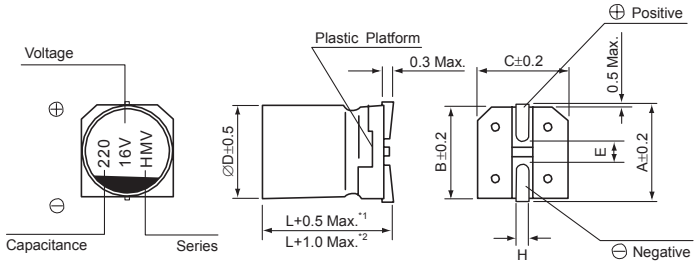
Items	Characteristics
Operation Temperature Range	-55 ~ +105°C
Voltage Range	2.5 ~ 50V
Capacitance Range	15 ~ 3900 μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	≤Specified value (after 2 minutes application of rated voltage at 20°C).
Dissipation Factor (tan δ)	≤Specified value at 120Hz, 20°C.
ESR	≤Specified value at 100KHz, 20°C.
Stability at Low Temperature	Measurement frequency : 100KHz Impedance Ratio ZT/Z20 (max.): Z(-25°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, 90~95% RH, they meet the characteristics listed below. Capacitance Change: Within ±20% of initial value Dissipation Factor: 150% or less of initial specified value ESR: 150% or less of initial specified value Leakage Current: Initial specified value or less
Endurance	When the capacitors are restored to 20°C after 5000 hours application of the rated voltage at 105 °C, they meet the cteristics listed below. Capacitance Change: Within ±20% of initial value Dissipation Factor: 150% or less of initial specified value ESR: 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: 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
*3. Capacitance ≥1000μF

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	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) / Cap. (μF) / Parameter		2.5					4				
		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100K~300KHz	Ripple current (mA rms) 105°C, 100KHz	Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100K~300KHz	Ripple current (mA rms) 105°C, 100KHz
390	397						6.3 × 6	0.12	312	18	2980
470	477						6.3 × 7.7	0.12	376	12	3740
560	567	6.3 × 6	0.12	280	17	2740					
680	687	6.3 × 7.7	0.12	340	10	4100					
1000	108						8 × 10	0.12	800	10	5180
1200	128	8 × 10	0.12	600	8	5830					
2200	228						10 × 10.5	0.12	1760	8	5700
2700	278	10 × 10.5	0.12	1350	9	5420					
3300	338						10 × 12.8	0.12	2640	9	6100
3900	398	10 × 12.8	0.12	1950	8	6400					

WV (V) / Cap. (μF) / Parameter		6.3					10				
		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100K~300KHz	Ripple current (mA rms) 105°C, 100KHz	Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100K~300KHz	Ripple current (mA rms) 105°C, 100KHz
120	127						6.3 × 6	0.12	240	27	2320
220	227						6.3 × 6	0.12	440	17	2920
270	277						6.3 × 7.7	0.12	540	15	3400
330	337	6.3 × 6	0.12	415	19	2860					
470	477	6.3 × 7.7	0.12	592	11	3910					
560	567						8 × 10	0.12	1120	14	4400
820	827	8 × 10	0.12	1033	10	5220	8 × 12.5	0.12	1640	11	4510
1000	108						10 × 10.5	0.12	2000	12	4800
1200	128						10 × 12.8	0.12	2400	11	5200
1500	158	10 × 10.5	0.12	1890	9	5600					
2200	228	10 × 12.8	0.12	2772	9	5900					

DIMENSIONS & STANDARD RATINGS

WV (V) / Parameter / Cap. (μF)		16					20				
		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz	Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz
47	476						6.3 × 6	0.12	188	55	1000
56	566	6.3 × 6	0.12	179	50	1000	6.3 × 6	0.12	224	48	1300
68	686						8 × 7	0.12	272	45	1300
82	826	6.3 × 6	0.12	262	47	1300					
100	107	8 × 7	0.12	320	36	1500	8 × 7	0.12	400	42	1400
120	127						6.3 × 6	0.12	480	25	3200
150	157	6.3 × 6	0.12	480	25	2630	8 × 10 (10 × 8)	0.12 (0.12)	600 (600)	28 (33)	2000 (1900)
180	187						10 × 8	0.12	720	25	3100
220	227	6.3 × 7.7	0.12	704	19	3100	8 × 10 (8 × 12)	0.12 (0.12)	880 (880)	22 (27)	3700 (2300)
270	277	8 × 10 (8 × 12) (10 × 8)	0.12 (0.12) (0.12)	864 (864) (864)	21 (26) (24)	3800 (2300) (3200)	8 × 12 (10 × 10)	0.12 (0.12)	1080 (1080)	21 (27)	4000 (2300)
330	337	10 × 10	0.12	1056	26	2400	10 × 10 (10 × 12.7)	0.12 (0.12)	1320 (1320)	22 (26)	3800 (2700)
390	397	8 × 12	0.12	1248	20	4100					
470	477	8 × 10	0.12	1504	15	4270	10 × 12.7	0.12	1880	20	4300
680	687	10 × 12.7	0.12	2176	19	4400					
820	827	8 × 12.5 (10 × 10.5)	0.12 (0.12)	2624 (2624)	13 (16)	4450 (4200)					
1000	108	10 × 12.8	0.12	3200	14	4800					

WV (V) / Parameter / Cap. (μF)		25					35				
		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz	Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz
18	186						6.3 × 6	0.12	126	64	900
22	226						6.3 × 6	0.12	154	50	1300
27	276						8 × 7	0.12	189	55	1200
33	336	6.3 × 6	0.12	165	60	1000					
39	396						8 × 7	0.12	273	52	1400
47	476	6.3 × 6	0.12	235	49	1300	6.3 × 6	0.12	329	35	2600
56	566	8 × 7 (6.3 × 5.7)	0.12 (0.12)	280 (280)	50 (30)	1300 (2800)	6.3 × 6.5 (8 × 10)	0.12 (0.12)	392 (392)	49 (31)	1600 (1900)
68	686	6.3 × 6	0.12	340	30	2800	6.3× 7.7	0.12	476	34	2400
82	826	8 × 7	0.12	410	47	1400	8 × 10 (8 × 12) (10 × 8)	0.12 (0.12) (0.12)	574 (574) (574)	24 (29) (27)	3600 (2200) (3000)
100	107	6.3x7.7	0.12	500	28	3200	6.3 × 8.7 (6.3 × 9)	0.12 (0.12)	700 (700)	35 (35)	1450 (1450)
120	127	8 × 9 (8 × 10)	0.12 (0.12)	600 (600)	29 (35)	1900 (1900)	8 × 10	0.12	840	21	3600
150	157	8 × 10	0.12	750	21	4100	8 × 12.5	0.12	1050	19	4200
180	187	10 × 10	0.12	900	28	2300	10 × 12.7	0.12	1260	22	4100
220	227	8 × 12.5	0.12	1100	16	4650	10 × 10.5	0.12	1540	21	4500
270	277	10 × 10 (10 × 12.7)	0.12 (0.12)	1350 (1350)	23 (27)	3700 (2700)					
330	337	10 × 10.5	0.12	1650	15	4800	10 × 12.8	0.12	2310	18	4800
390	397	10 × 12.7	0.12	1950	21	4200					
470	477	10 × 12.8	0.12	2350	14	5000	10 × 12.5	0.12	3290	20	5900

DIMENSIONS & STANDARD RATINGS

WV (V) / Parameter / Cap. (μF)		50				
		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz
5.6	565					
8.2	825	6.3 × 6	0.12	82	81	800
10	106					
12	126	6.3 × 6	0.12	120	55	1200
15	156	6.3 × 6	0.12	150	40	2100
22	226	6.3 × 7.7	0.12	220	32	2300
27	276					
33	336	8 × 10 (10 × 8)	0.12 (0.12)	330 (330)	36 (49)	1700 (1500)
39	396	8 × 12	0.12	390	34	2000
47	476	8 × 10	0.12	470	25	2800
56	566	8 × 12	0.12	560	28	3400
68	686	8 × 12.5	0.12	680	23	3600
82	826	10 × 10.5	0.12	820	23	3800
100	107	10 × 12.8	0.12	1000	20	4100

◆ How to order

HMV	106	M	0035	0607	R	-
↓	↓	↓	↓	↓	↓	↓
Type	Capacitance code	Tolerance	Rated Voltage	Size Code	Package	Additional characters may be added for special requirements
HMV	pF Code: 1st two digits represent significant figures 3rd digit represents mulitplier (number of zeros to follow) 106= 10uF 107= 100uF 127= 120uF	M: +/-20%	Code 0035: 35VDC For DC Voltage 0006: 6.3VDC 0010: 10VDC 0035: 35VDC 0450: 450VDC	Code 0607: Size 6.3x7.7mm Size for V-chip E-cap 0606: Size 6.3x6.0mm 0607: Size 6.3x7.7mm 1010: Size 10x10mm	R: Tape & Reel	