CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

HMS Series

CHIP TYPE, LONG LIFE

- Operating with wide temperature range -55~+105°C
- Long life assurance
- Load life of 5000 hours
- RoHS & REACH compliant, Halogen-free

SPECIFICATIONS

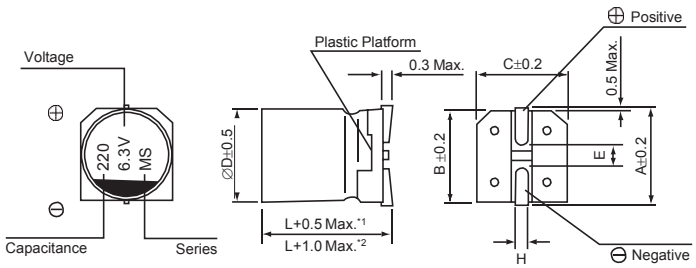
Items	Characteristics
Operation Temperature Range	-55 ~ +105°C
Voltage Range	4 ~ 50V
Capacitance Range	22 ~ 560μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	≤Specified value (after 2 minutes application of rated voltage at 20°C).
Dissipation Factor (tan δ)	≤Specified value at 120Hz, 20°C.
ESR	≤Specified value at 100KHz, 20°C.
Stability at Low Temperature	Measurement frequency : 100KHz Impedance Ratio ZT/Z20 (max.): Z(+105°C)/Z(20°C) ≤1.25; 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: 150% or less of initial specified value Leakage Current: Initial specified value or less
Endurance	After 5000 hours application of the rated voltage at 105°C, 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
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

DIMENSIONS (Unit: mm)

ØD × L	5 × 6	6.3 × 6	8 × 7	6.3 × 7	6.3 × 9.5	8 × 12	10 × 12
A	6.0	7.3	9.0	7.3	7.3	8.0	10.0
B	5.3	6.6	8.3	6.6	6.6	8.3	10.3
C	5.3	6.6	8.3	6.6	6.6	8.3	10.3
E	1.6	2.1	3.2	2.1	2.1	3.2	4.6
L	6.0	6.0	7.0	7.0	9.5	12.0	12.0
H	0.5~0.8	0.5~0.8	0.8~1.1	0.5~0.8	0.5~0.8	0.8~1.1	0.8~1.1

DIMENSIONS & STANDARD RATINGS

WV (V) / Parameter / Cap. (μF)		4 (0G)					6.3 (0J)				
		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						5 × 6	0.12	59.22	35	1600
100	107						5 × 6 (6.3 × 6)	0.12 (0.12)	126 (126)	25 (22)	2400 (2800)
120	127						6.3 × 6	0.12	151	22	2800
150	157	5 × 6	0.12	120	25	2200					
220	227						6.3 × 6 (8 × 7)	0.12 (0.12)	277 (277)	20 (22)	2800 (3200)
330	337	6.3 × 6 (8 × 7)	0.12 (0.12)	264 (264)	20 (22)	2800 (3200)					
390	397						8 × 7	0.12	491	22	3200
470	477						6.3 × 9.5	0.12	592	18	3200
560	567	8 × 7	0.12	448	18	3600					

WV (V) / Parameter / Cap. (μF)		10 (1A)					16 (1C)				
		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
22	226						5 × 6	0.12	70.4	45	1100
33	336	5 × 6	0.12	66	40	1300					
39	396						5 × 6 (6.3 × 6)	0.12 (0.12)	125 (125)	35 (30)	2000 (2200)
56	566	6.3 × 6	0.12	112	27	2300					
68	686	5 × 6	0.12	136	30	2100	6.3 × 6	0.12	218	30	2200
82	826						8 × 7	0.12	262	28	2800
120	127	6.3 × 6	0.12	240	27	2300	8 × 7	0.12	384	28	2800
150	157	8 × 7	0.12	300	30	2600					
180	187						6.3× 5.8	0.12	576	22	3300
220	227	6.3 × 7	0.12	440	22	2800					
270	277	8 × 7	0.12	540	22	3200	6.3× 7.7	0.12	864	10	5080

WV (V) / Parameter / Cap. (μF)		25 (1E)					35 (1V)				
		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
82	826						8 × 12	0.12	574	29	2200
100	107	6.3 × 9.5	0.12	500	32	2900					
150	157						10 × 12	0.12	1050	28	2600
180	187	8 × 12	0.12	900	16	4650					

DIMENSIONS (Unit: mm)

WV (V) / Parameter / Cap. (μF)		50 (1H)				
		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
39	396	8 × 12	0.12	390	25	3800
68	686	10 × 12	0.12	680	20	4300

◆ How to order

HMS	106	M	0035	0607	R	-
↓	↓	↓	↓	↓	↓	↓
Type	Capacitance code	Tolerance	Rated Voltage	Size Code	Package	Additional characters may be added for special requirements
HMS	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 1012: Size 10x12mm	R: Tape & Reel	