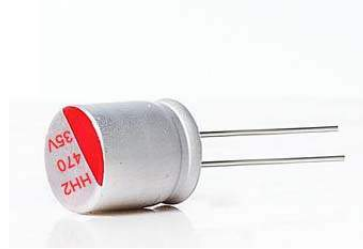


## CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

### HH2 Series

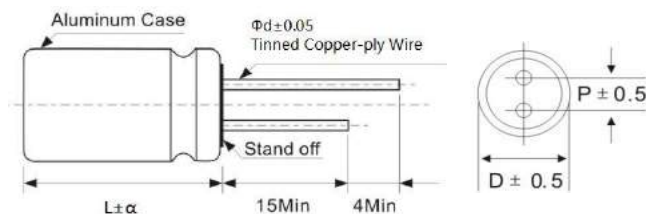
- Low ESR, high ripple current, high voltage
- Load life of 2000 hours at 105°C
- Radial, Voltage Range 35V~100VDC
- RoHS Compliant



#### ◆ Specifications

Items	Characteristics		
Category	-55 ~ +105°C		
Temperature Range			
Rated Voltage Range	35 ~ 100V		
Capacitance tolerance	±20%(M) (at 20°C,120Hz)		
Leakage Current	Less than or equal to the specified value. After 2 minutes application of rated Voltage at 20°C, I≤0.1CV or 299µA		
Dissipation Factor (tanδ)	Rated voltage (V)	35~100	(at 20°C,120Hz)
	tanδ (Max.)	0.12	
Low Temperature Characteristics (Max.Impedance Ratio)	Z(-25°C)/Z(+20°C)	≦ 1.25	(100KHz)
	Z(-55°C)/Z(+20°C)	≦ 1.25	
Endurance	The specifications listed below shall be satisfied when the capacitors are restored to 20°C after application of rated voltage for 2000 hours at 105°C.		
	Appearance	No significant damage	
	Capacitance change	≦ ±20% of the initial value	
	D.F.(tanδ)	≦ 150% of the specified value	
	ESR	≦ 150% of the specified value	
	Leakage current	≦ The specified value	
Damp Heat (Steady State)	The specifications listed below shall be satisfied when the capacitors are restored to 20°C after application of rated voltage for 1000 hours at 60°C,90%~ 95% RH.		
	Appearance	No significant damage	
	Capacitance change	≦ ±20% of the initial value	
	D.F.(tanδ)	≦ 150% of the specified value	
	ESR	≦ 150% of the specified value	
	Leakage current	≦ The specified value	
(Surge Voltage)	Surge Voltage=Rated voltage × 1.15(V)		
	The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltages specified at 105°C for 30 seconds through a protective resistor (Rc=1kΩ) and discharge for 5 minutes 30 seconds		
	Appearance	No significant damage	
	Capacitance change	≦ ±20% of the initial value	
	D.F.(tanδ)	≦ 150% of the specified value	
	ESR	≦ 150% of the specified value	
Leakage current	≦ The specified value		

#### ◆ Dimensions (mm)



ΦD	5	6.3	8	10
P	2.5	2.5	3.5	5.0
Φd	0.5	0.6	0.6	0.6

α	(L < 16)1.0
	(16 ≦ L < 22)1.5
	(L ≧ 22)2.0



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### ◆ Rated Ripple Current Coefficient

Frequency(Hz)	120Hz $\leq$ f < 1kHz	1kHz $\leq$ f < 10kHz	10kHz $\leq$ f < 100kHz	100kHz $\leq$ f < 500kHz
Coefficient	0.05	0.30	0.70	1.00

### ◆ Standard Ratings

Rated voltage (V)	Rated capacitance (uF)	Case size $\Phi$ D×L(mm)	ESR(m $\Omega$ ) at 20°C, 100 KHz	Leakage Current ( $\mu$ A)	Rated ripple current (mArms/105°C/100kHz)
35	10	5*8	120	299	1100
	22	6.3*8	100	299	1350
	33	5*8	120	299	1100
	39	6.3*8	90	299	1350
	39	8*9	60	299	1800
	47	5*7	80	299	1350
	47	6.3*8	60	299	1800
	56	6.3*8	80	299	1350
	56	8*9	60	299	1800
	68	6.3*8	70	299	1500
	68	8*9	50	299	2000
	82	6.3*11	60	299	1800
	82	8*9	40	299	2000
	100	5*11	45	350	1800
	100	6.3*8	40	350	2000
	150	6.3*12	35	525	2500
	220	8*9	35	770	2350
	220	8*12	35	770	2500
	220	10*12.5	30	770	2750
	330	10*12.5	30	1155	2900
470	10*13	30	1645	2900	
50	10	5*8	120	299	550
	15	6.3*8	100	299	800
	22	6.3*8	100	299	850
	33	8*9	50	299	1300
	33	8*12	40	299	1500
	39	8*9	50	299	1300
	39	8*12	40	299	1500
	47	8*12	40	299	1500
	56	8*12	40	299	1500
	82	10*12.5	35	410	2100
	100	10*12.5	35	500	2100
	220	10*12.5	35	1100	2500



## HH2 Series

### ◆ Standard Ratings

Rated voltage (V)	Rated capacitance (uF)	Case size ΦD×L(mm)	ESR(mΩ) at 20°C, 100 KHz	Leakage Current (μA)	Rated ripple current (mArms/105°C/100kHz)
63	10	5*8	120	299	500
	15	6.3*8	100	299	750
	22	6.3*8	100	299	750
	33	8*9	55	299	1100
	39	8*9	55	299	1100
	47	8*12	45	299	1300
	56	8*12	45	353	1300
	82	10*12.5	38	517	1800
	100	10*12.5	38	630	1800
80	10	6.3*8	120	299	550
	15	6.3*8	120	299	550
	22	8*9	80	299	1100
	22	8*12	60	299	1300
	33	10*12.5	45	299	1700
	39	10*12.5	45	312	1700
	47	10*12.5	45	376	1800
	56	10*12.5	45	448	1800
100	10	8*9	90	299	850
	15	8*12	70	299	1190
	22	10*12.5	60	299	1550
	33	10*12.5	60	330	1550

### ◆ How to order

<u>HH2</u>	<u>106</u>	<u>M</u>	<u>035</u>	<u>B</u>	<u>2</u>	<u>R</u>	<u>-</u>
↓	↓	↓	↓	↓	↓	↓	↓
<u>Type</u>	<u>Capacitance code</u>	<u>Tolerance</u>	<u>Rated DC Voltage</u>	<u>Package</u>	<u>Pitch size</u>	<u>RoHs</u>	<u>Additional characters may be added for special requirements</u>
HH2	pF Code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow) 106 = 10uF 107 = 100uF	M: +/-20%	Code 035: 35VDC 035 = 35VDC 050 = 50VDC 100 = 100VDC	B: Bulk	2: pitch size 2.0mm 5: pitch size 5.0mm		