

Fixed Component Capacitors

### Aluminum Electrolytic Capacitor Type ESS - 5mm Height 85° Standard Series

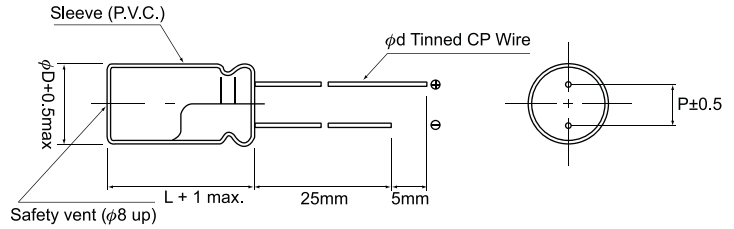
#### △ Features

- 5mm Height Subminiature Standard Series
- Excellent spacing favor with 5mm height
- Expected life (1,000 hours at 85° C)

#### △ Applications

- 5mm Height Subminiature Standard Series
- Excellent spacing with 5mm height

#### △ Specifications



ØD	3	4	5	6	8
P	1.0	1.5	2.0	2.5	3.5
Ød	0.40	0.45	0.45	0.45	0.45

Item		Performance Characteristics							
Operating Temperature		-40 + 85°C							
Rated Voltage		4V ~ 50V							
Capacitance Range		0.1 ~ 220 µF							
Capacitance Tolerance		±20% (120Hz, 20°C)							
Leakage Current		I ≤ 0.01CV or 3 µA, whichever is greater after 2 minutes application of rated voltage.							
Dissipation Factor (120Hz, 20°C)	Rated voltage (V)	4	6.3	10	16	25	35	50	
	Tan δ (max.)	0.35	0.24	0.20	0.16	0.14	0.12	0.10	
Temperature Characteristics (120Hz)	Stability at Low Temperature								
	Rated voltage (V)	4	6.3	10	16	25	35	50	
	Z (-25°C) / Z (20°C)	7	4	3	2	2	2	2	
	Z (-40°C) / Z (20°C)	15	8	6	4	4	3	3	
Load Life	After 1,000 hours application of WV at 85°C, capacitor shall meet the characteristics requirements.								
	Capacitance change	Within ±20% of initial value							
	Tan δ	200% or less of initial specified value							
	Leakage current	Initial specified value or less							
Shelf Life	After leaving capacitors under no load at 85°C for 1,000 hours and applying voltage according to JIS C5102 4-3, they meet the specified value for load life characteristics listed above.								

NOTE: Part Numbering System  
 (1) (2) (3) (4) 1 Series 3 Tolerance  
 ESS 106 M 1H 2 Capacitance 4 Working Voltage

#### △ Dimensions

WV(SV) Cap (µF)	Dφ x L (mm)													
	4 (5)	6.3 (10)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)							
0.1												○ 4 x 5	1	
0.22												○ 4 x 5	2	
0.33												○ 4 x 5	3	
0.47												○ 4 x 5	4	
1												○ 4 x 5	9	
2.2												○ 4 x 5	13	
3.3												○ 4 x 5	17	
4.7										○ 4 x 5	18	5 x 5	20	
10					○ 4 x 5	23	4 x 5	25	5 x 5	29	6.3 x 5	33		
22		○ 4 x 5	28	○ 4 x 5	31	4 x 5	33	5 x 5	38	6.3 x 5	46	8 x 5	52	
33	○ 4 x 5	28	4 x 5	31	4 x 5	33	5 x 5	43	6.3 x 5	52	8 x 5	62	8 x 5	71
47	4 x 5	33	4 x 5	35	4 x 5	37	5 x 5	48	6.3 x 5	62	8 x 5	80		
100	5 x 5	56	5 x 5	60	6.3 x 5	76	6.3 x 5	86	8 x 5	110				
220	6.3 x 5	96	6.3 x 5	110	8 x 5	135	8 x 5	145						
330	8 x 5	145	8 x 5	170										
470	8 x 5	185												
												Case Size	Ripple	

\* Size 3x5 is available for which marked with "○" above.

Ripple current (mA) at 85°C 120Hz