



LIBERTY
Components

Aluminum Electrolytic Capacitor

Type ESL

Aluminum Electrolytic Capacitor Type ESL - 7mm Height 85°C Low Leakage Series

△ Features

- Low Leakage Current Series
- Highly reliable electrical performance
- Expected life (1,000 hours at 85° C)

△ Applications

- Excellent spacing with 7mm height

△ Specifications

Item	Performance Characteristics					
Operating Temperature Range	-40 + 85°C					
Rated Voltage	6.3V ~ 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)	6.3	10	16	25	35
	Tan δ (max.)	0.24	0.20	0.16	0.14	0.12
	0.10					
	Stability at Low Temperature					
Temperature Characteristics (120Hz)	Rated voltage (V)	6.3	10	16	25	35
	Z (-25°C) / Z (20°C)	4	3	2	2	2
	Z (-40°C) / Z (20°C)	8	6	4	4	3
	3					
	After 1,000 hours application of WV at 85°C, capacitor shall meet the characteristics requirements.					
Load Life	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 and C5141, they meet the specified value for load life characteristics listed above.					

△ Dimensions

WV(SV) Cap (μF)	6.3 (10)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	Dφ x L (mm)
0.1							4 x 7 1
0.22							4 x 7 2.3
0.33							4 x 7 3.5
0.47							4 x 7 5
1							4 x 7 10
2.2							4 x 7 19
3.3							4 x 7 24
4.7						4 x 7 24	5 x 7 29
10			4 x 7 29	5 x 7 33	5 x 7 36	6.3 x 7 44	
22	4 x 7 34	5 x 7 38	5 x 7 44	6.3 x 7 51	6.3 x 7 57	8 x 7 65	
33	5 x 7 42	5 x 7 47	6.3 x 7 57	6.3 x 7 63	8 x 7 72		
47	5 x 7 50	6.3 x 7 59	6.3 x 7 68	8 x 7 78			
100	6.3 x 7 77	8 x 7 96	8 x 7 107				
220	8 x 7 130						Case Size Ripple

Ripple current (mA) at 85°C 120Hz

NOTE: Part Numbering System
(1) (2) (3) (4)
ESL 106 M 1H

- 1 Series
- 2 Capacitance
- 3 Tolerance
- 4 Working Voltage

