

Miniature Size Aluminum Electrolytic Capacitors

SM [For Very Low Impedance and Very Low E.S.R Suitable for Output of Mother Board]

105°C Single-Ended Lead Aluminum Electrolytic Capacitors For High Frequency Applications

ELECTRICAL CHARACTERISTICS

Operating Temperature : -40° ~ +105°C

Working Voltage : 6.3 ~ 50V

Rate Capacitance Range : 22 ~ 6800µF

Capacitance Tolerance : -20 ~ +20%

DC Leakage Current (µA) : I = 0.01 CV(µA)

(Measurements shall be Made After a 2 Minute Charge at Rated Working Voltage)

Dissipation Factor : at 120 Hz, 25°C

WV (V):	6.3	10	16	25	35	50
D.F (%) :	2.2	19	16	14	12	10

For capacitor whose capacitance exceeds 1000µF. The value of D.F(%) is increased by 2% for every addition of 1000µF.

Load Life : 2000 Hours for D = 8ø; 3000 Hours for D ≥ 10ø at 105°C

- (a) Capacitance Change : Within 20% of Initial Value
- (b) Dissipation Factor : Not Exceed 200% of Initial Requirement
- (c) Leakage Current : Not Exceed the Initial Requirement

Shelf Life : 1000 Hours, No Voltage Applied, at 105°C

- (a) Capacitance Change : Within 20% of Initial Value
- (b) Dissipation Factor : Not Exceed 200 % of Initial Requirement
- (c) Leakage Current : Not Exceed 200% of Initial Requirement

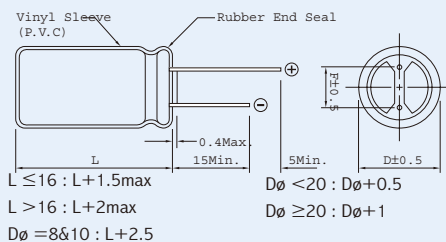


RoHS
COMPLIANT

DIAGRAM OF DIMENSIONS

Dø	F	dø
5.0	2.0	0.5
6.3	2.5	
8.0	3.5	
10.0	5.0	0.6
12.0		
13.0		
16.0	7.5	0.8
18.0		
22.0	10.0	0.8

Rubber Stand-off



DESCRIPTION

Used in switching regulator applications in computers. Especially for high frequency.

Very low impedance and E.S.R., high permissible ripple current at high frequency and higher operating temperature (-40°C to +105°C).

High Temperature Load Life at 105°C for 3000 Hours

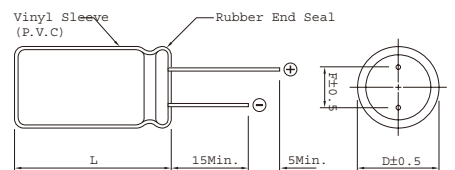
Multiplier for Ripple Current
Frequency coefficient

Frequency(Hz)	60	120	1K	10K	100K
5.6~33µF	0.45	0.55	0.75	0.90	1.00
39~330µF	0.6	0.70	0.85	0.95	1.00
470~1000µF	0.65	0.75	0.90	0.98	1.00
1200~6800µF	0.75	0.80	0.95	1.00	1.00

Temperature coefficient

Temperature(°C)	65	85	105
Factor	2.00	1.60	1.00

Dimensions : mm





CASE SIZE OF STANDARD PRODUCTS $D\varnothing \geq 6\text{mm}$ with Safety Vent at Can Bottom

CAP. (μF)	RATED VOLTAGE								
	6.3			10			16		
	SIZE	Ripple	ESR	SIZE	Ripple	ESR	SIZE	Ripple	ESR
56							5 x 11	250	0.30
100				5 x 11	250	0.300			
120							6.3 x 11	405	0.130
150	5 x 11	250	0.30						
220	6.3 x 11	405	0.13	6.3 x 11	405	0.13	8 x 11	760	0.072
330	6.3 x 11	405	0.13	8 x 11	622	0.072	*8 x 11	760	0.072
470	8 x 11	582	0.100	8 x 11	760	0.072	8 x 15	995	0.056
							10 x 12	995	0.056
560	8 x 11	760	0.072						
680				10 x 12	995	0.056	8 x 20	1250	0.041
				8 x 15	995	0.056	10 x 15	1250	0.041
820	8 x 15	995	0.056						
1000	8 x 15	950	0.053	8 x 20	1250	0.041	10 x 19.5	1820	0.023
	10 x 12	1030	0.053	10 x 15	1430	0.038			
1200	8 x 20	1250	0.041	10 x 19.5	1820	0.023	*10 x 25	2150	0.022
	10 x 15	1430	0.038				10 x 22	2150	0.022
1500	10 x 19.5	1820	0.023	10 x 25	2150	0.022	13 x 20	2360	0.028
2200	10 x 22	2150	0.023	13 x 20	2360	0.021	13 x 25	2770	0.025
	10 x 25	2150	0.023						
2700	10 x 25	2200	0.021				12 x 30	3140	0.018
							16 x 20	3140	0.018
3300	13 x 20	2360	0.021	13 x 25	2770	0.018	12 x 35	3400	0.015
3900	13 x 25	2770	0.018	13 x 30	3140	0.018	16 x 25	3460	0.016
				16 x 20	3140	0.018			
4700	13 x 30	3290	0.016	12 x 35	3400	0.015			
5600	12 x 35	3140	0.018	16 x 25	3460	0.016			
	16 x 20	3140	0.018						
6800	16 x 25	3460	0.016						

Note : * I. D x L : mm

*2. Ripple Current : (mA r.m.s 105°C / 100KHz), ESR (Ω Max20°C / 100KHz)

3. “” is down size, Edurance is less 1000 hrs than standard



CASE SIZE OF STANDARD PRODUCTS $D\varnothing \geq 6\text{mm}$ with Safety Vent at Can Bottom

CAP. (μF)	RATED VOLTAGE								
	25			35			50		
	SIZE	Ripple	ESR	SIZE	Ripple	ESR	SIZE	Ripple	ESR
22							5 x 11	238	0.340
33				5 x 11	250	0.30	6.3 x 11	385	0.140
47	5 x 11	250	0.30	6.3 x 11	405	0.130	6.3 x 11	385	0.140
56				6.3 x 11	405	0.130	6.3 x 11	385	0.140
100	6.3 x 11	405	0.13	8 x 11	760	0.072	8 x 11	724	0.074
120							8 x 15	950	0.061
150				8 x 11	760	0.072	10 x 12	979	0.061
180							8 x 20	1190	0.046
220	8 x 11	760	0.072	8 x 15	995	0.056	10 x 15	1370	0.042
				10 x 12	995	0.056			
270	*8 x 15		0.057	8 x 20	1250	0.041	10 x 19.5	1580	0.030
330	10 x 12	995	0.056	10 x 15	1430	0.038	10 x 25	1870	0.028
	8 x 15	995	0.056						
470	8 x 20	1250	0.041	10 x 19.5	1820	0.023	13 x 20	2050	0.027
	10 x 15	1430	0.038						
560				10 x 25	2150	0.022	13 x 25	2410	0.023
680	10 x 19.5	1820	0.028	13 x 20	2360	0.021	12 x 30	2860	0.021
820	10 x 25	2200	0.021				12 x 35	2730	0.023
							16 x 20	2730	0.023
1000	12 x 20	2360	0.021	13 x 25	2770	0.018	16 x 25	3010	0.021
	13 x 20	2360	0.021						
1200				12 x 30	3140	0.018			
				16 x 20	3140	0.018			
1500	13 x 25	2770	0.018	12 x 35	3400	0.015			
1800	16 x 20	3140	0.018	16 x 25	3460	0.016			
2200	12 x 35	3400	0.015						
	16 x 32	3633	0.015	16 x 32	3460	0.016			
2700	16 x 25	3460	0.016						
3300									
3900									
4700									

Note : * I. D x L : mm

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