

Miniature Aluminum Electrolytic Capacitors

SP [Miniature and Long Life]

105°C Single-Ended Lead Aluminum Electrolytic Capacitors For Electronic Ballast



DESCRIPTION

Applicable for Electronic Ballast

High Temperature Load Life at 105°C for 8000~10000 Hours

MULTIPLIER FOR RIPPLE CURRENT

Frequency Coefficient

FREQUENCY (Hz)	120	1K	10K	100K
COEFFICIENT	1	1.6	1.8	2

Temperature Coefficient

TEMPERATURE (°C)	65	85	105
FACTOR	1.70	1.40	1.00

ELECTRICAL CHARACTERISTICS

Operating Temperature Range : -40 ~ +105°C / -25 ~ +105°C

Rated Voltage Range : 160 ~ 400V / 450V

Rated Capacitance Range : 3.3 ~ 330μF

Capacitance Tolerance : -20 ~ +20% at 120Hz, 20°C

DC Leakage Current (μA) : $I = 0.04CV$ (μA) + 100μA whichever is greater.
(After Rated Voltage Applied for 2 Minutes)

Dissipation Factor

WV (V) :	160	200	400	450
D.F (%) :	20	20	24	24

Low Temperature Stability Impedance Ratio (Max.)

WV (V) :	160	200	400	450
Z - 25°C / Z + 20°C	3	3	5	6
Z - 40°C / Z + 20°C	6	6	6	-

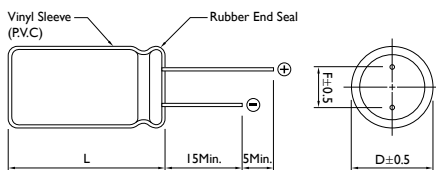
Endurance: The following specifications shall be satisfied when the capacitors are stored at 20°C after subjected to DC Voltage with the maximum ripple current which is applied for 10,000 hours (8000 hours for 10ø) at 105°C.

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

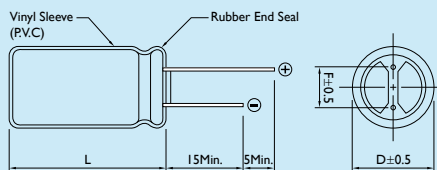
Shelf Life : After having been placed at 105°C without voltage applied for 1000 hours, the capacitors shall meet the same requirements as Endurance.

DIAGRAM OF DIMENSIONS

Dimensions: mm



Rubber Stand-off



$L \leq 16 L + 1.5\text{Max.}$
 $L > 16 L + 2\text{Max.}$
 $D\phi = 8 \ \& \ 10 L + 2.5\text{Max.}$

$D\phi < 20 \ D\phi + 0.5$
 $D\phi \geq 20 \ D\phi + 1$

Dø	F	dø
10.0	5.0	0.6
12.0		
13.0		
16.0	7.5	0.8
18.0		
22.0	10.0	

CASE SIZE & PERMISSIBLE RIPPLE CURRENT OF STANDARD PRODUCTS

D x L: mm

CAP. (μF)	RATED VOLTAGE WV (SURGE VOLTAGE WV)							
	160 (200) SIZE		200 (250) SIZE		400 (450) SIZE		450 (500) SIZE	
		RIPPLE		RIPPLE		RIPPLE		RIPPLE
3.3							10 x 15	100
4.7							10 x 19.5	140
6.8					10 x 19.5	150	10 x 19.5	150
							12.5 x 20	180
10					10 x 19.5	180	12.5 x 20	310
22			10 x 19.5	440	16 x 20	300	16 x 25	560
							18 x 20	550
33	10 x 19.5	500	10 x 19.5	520	16 x 25	520	16 x 32	620
			12.5 x 20	580			18 x 25	590
47	10 x 19.5	580	13 x 20	660	16 x 32	700	16 x 36	880
	12.5 x 20	660					18 x 32	880
68	12 x 25	720	13 x 25	720	18 x 32	870		
	16 x 20	760	16 x 20	760				
100	13 x 25	970	16 x 25	1120				
	16 x 20	1120						
	16 x 25	1120						
	18 x 20	1120						
150	16 x 25	1200	16 x 32	1280				
	16 x 32	1300						
	18 x 25	1300						
220	16 x 32	1300						
	18 x 25	1300						
330	18 x 36	1380						

Note: I. Ripple Current: (mA/rms) 105°C, 100KHz