

## Features

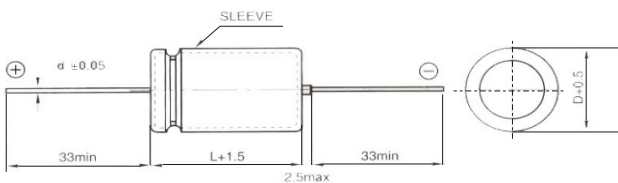
- Load life of 2,000 hours at 85°C.
- Axial type aluminum electrolytic capacitors.
- Bi-polar, suitable for circuits whose polarity is sometimes reversed or unknown.
- Case size larger than 6.3mm diameter has safety vent on rubber bun.



## Specifications

Item	Characteristics						
Operating temperature range	-40~+85°C						
Rated voltage range	10~100V						
Capacitance range	0.47~2,200 µ F						
Capacitance tolerance (at 20°C, 120Hz)	±20%(M)						
Leakage current(I) (at 20°C)	After 2 minutes application of rated voltage. I ≤ 0.03CV or 3 µ A, whichever is greater. Where C: Nominal capacitance in µ F, V: Rated voltage in V.						
Dissipation factor(Tan δ) (at 20°C, 120Hz)	W.V.(V)	10	16	25	35	50 ~63	100
	Tan δ (max.)	0.24	0.20	0.18	0.16	0.12	0.10
For capacitance of more than 1,000 µ F, add 0.02 for every increase of 1,000 µ F.							
Low temperature characteristics (at 120Hz)	W.V.(v)	10~16		25~63		100	
	impedance ratio Z-25°C/Z+20°C	3		2		2	
	ZT/Z+20°C(max) Z-40°C/Z+20°C	6		4		3	
Load life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage has been applied for 2,000 hours at 85°C with the polarity inverted every 250 hours.						
	Capacitance change	≤20% of the initial value					
	tan δ	≤200% of the initial specified value					
	I	≤The initial specified value					
Shelf life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them at 85°C for 500 hours without voltage applied						
	Capacitance change	≤20% of the initial value					
	tan δ	≤150% of the initial specified value					
	I	≤200% of the initial specified value					
Others	Satisfies characteristic W of JIS C5141						

## Dimensions



D	6.3~13	16~18
d	0.6	0.8



**Case Size DxL(mm) and Maximun Ripple current(mA/at 85°C,120Hz)**

W.V.(v) Cap.(μ F)	10		16		25		35		50		63		100	
0.47													6.3×12	14
1													6.3×12	21
2.2													8×13	34
3.3													8×13	39
4.7									6.3×12	34	8×13	34	8×13	47
10							6.3×12	43	8×13	52	8×16	57	10×17	71
22			6.3×12	57	6.3×12	65	8×13	73	8×16	89	10×17	95	10×21	135
33	6.3×12	64	6.3×12	70	8×13	80	8×16	100	10×17	105	10×21	135	13×22	220
47	8×13	76	8×13	95	8×16	95	10×17	120	10×17	150	10×21	180	13×22	240
100	8×16	125	8×16	160	10×17	160	10×21	230	13×22	265	13×22	320	16×33	425
220	10×17	215	10×21	275	10×21	305	13×22	410	13×26	480	16×33	575		
330	10×21	345	13×22	375	13×22	450	13×26	505	16×26	650	18×36	655		
470	13×22	410	13×22	485	16×26	540	16×28	655	16×33	835				
1,000	13×26	720	16×28	855	16×33	950	18×36	1,140						
2,200	16×33	1,280	18×36	1,510										

**Ripple Current Multipliers**

Frequency multiplying factor

Cap.(μ F) Freq(Hz)	50	120	300	1k	10k
0.47~47	0.75	1.00	1.35	1.57	2.00
100~470	0.80	1.00	1.23	1.34	1.50
1,000~2,200	0.85	1.00	1.10	1.13	1.15

Temperature multiplying factor

Temperature(°C)	45	65	85
Factor	1.59	1.23	1.00