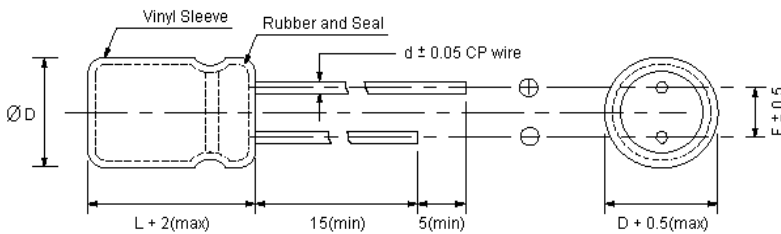


■ **FEATURES**

- ◆ Load life of 2000 hours at 105°C
- ◆ High temperature and high reliability
- ◆ Applications for communication equipments, consumer products, General industrial products, automovice appliance, etc.



■ **OUTLINE**



	mm									
D	5	6.3	8	10	13	16	18	20	22	25
F	2.0	2.5	3.5	5.0	7.5	10.5	12.5			
d	0.5	0.6	0.8	1.0						

■ **SPECIFICATIONS**

Items	Characteristics															
Capacitance Tolerance (120Hz, 25°C)	± 20% (M)															
Rated Working Voltage Range	6.3 ~ 100Vdc								160 ~ 450Vdc							
Operation Temperature	-40°C ~ +105°C								-25°C ~ +105°C							
Leakage Current (25°C)	(After 2 minutes applying the DC working voltage)								(After 5 minutes applying the DC working voltage)							
	I ≤ 0.01CV or 3 (uA)								I ≤ 0.03CV + 10 (uA)							
◆ I : Leakage Current (uA) ◆ C : Rated Capacitance (uF) ◆ V : Working Voltage (V)																
Surge Voltage (25°C)	W.V.	6.3	10	16	25	35	40	50	63	100	160	200	250	350	400	450
	S.V.	8	13	20	32	44	50	63	79	125	200	250	300	400	450	500
Dissipation Factor (120Hz, 25°C)	W.V.	6.3	10	16	25	35	40	50	63	100	160	200	250	350	400	450
	tan δ	0.25	0.20	0.17	0.15	0.12	0.12	0.10	0.10	0.10	0.15	0.15	0.15	0.15	0.20	0.20
◆ For capacitance exceeding 1000 uF, add 0.02 per increment of 1000 uF																
Temperature Characteristics	W.V.	6.3	10	16	25	35	40	50	63	100	160	200	250	350	400	450
	- 25°C / + 25°C	4	4	3	3	2	2	2	2	2	3	3	3	6	6	6
	- 40°C / + 25°C	10	8	6	4	3	3	3	3	3	4	4	4	6	6	6
◆ Impedance ratio at 120Hz																
Load Test	After 2000 hours application of WV at +105°C, the capacitor shall meet the following limits:															
	Capacitance Change	≤ ± 20% of initial value														
	tan δ	≤ 150% of initial specified value														
Shelf Test	After 1000 hours, no voltage applied at +105°C, the capacitor shall meet the following limits:															
	Capacitance Change	≤ ± 20% of initial value														
	tan δ	≤ 150% of initial specified value														
Leakage Current	≤ 200% of initial specified value															



■ **DIMENSIONS**

D x L (mm)

uF \ WV	D x L (mm)													
	6.3	10	16	25	35	50	63	100	160	200	250	350	400	
0.1					]	5 x 11	5 x 11	5 x 11					
0.22					]	5 x 11	5 x 11	5 x 11					
0.33					]	5 x 11	5 x 11	5 x 11					
0.47					]	5 x 11	5 x 11	5 x 11	5 x 11	6.3 x 11	6.3 x 11	6.3 x 11	6.3 x 11
1					]	5 x 11	5 x 11	5 x 11	6.3 x 12	6.3 x 11	6.3 x 11	8 x 12	8 x 12
2.2					]	5 x 11	5 x 11	5 x 11	6.3 x 12	6.3 x 12	8 x 12	8 x 12	10 x 12
3.3					]	5 x 11	5 x 11	5 x 11	6.3 x 12	8 x 12	8 x 14	10 x 12	10 x 16
4.7					]	5 x 11	5 x 11	5 x 11	8 x 12	8 x 12	10 x 12	10 x 16	10 x 20
10		]	5 x 11	5 x 11	5 x 11	5 x 11	5 x 11	5 x 11	10 x 12	10 x 15	10 x 16	10 x 20	13 x 20
22	]	5 x 11	5 x 11	5 x 11	5 x 11	6.3 x 12	6.3 x 12	5 x 11	10 x 16	10 x 20	13 x 20	13 x 25	16 x 26
33	]	5 x 11	5 x 11	5 x 11	5 x 11	6.3 x 12	8 x 12	5 x 11	10 x 20	13 x 20	13 x 25	16 x 26	16 x 31
47	]	5 x 11	5 x 11	6.3 x 11	6.3 x 12	6.3 x 12	8 x 12	5 x 11	13 x 20	13 x 25	16 x 26	16 x 31	18 x 35
100	5 x 11	5 x 11	6.3 x 11	6.3 x 11	8 x 12	8 x 14	10 x 16	5 x 11	16 x 26	16 x 26	16 x 35	22 x 32		
220	6.3 x 12	6.3 x 12	8 x 12	8 x 12	10 x 12	10 x 16	10 x 20	5 x 11	18 x 35	18 x 41				
330	8 x 12	8 x 12	8 x 12	10 x 12	10 x 16	10 x 20	13 x 20	5 x 11	22 x 36					
470	8 x 12	8 x 12	8 x 14	10 x 16	10 x 20	13 x 20	13 x 25	5 x 11						
1000	10 x 12	10 x 16	10 x 16	13 x 20	13 x 25	16 x 26	16 x 31	5 x 11						
2200	10 x 20	13 x 20	13 x 20	16 x 26	16 x 31	18 x 35	22 x 36							
3300	13 x 20	13 x 25	16 x 26	16 x 31	18 x 35	20 x 35								
4700	13 x 25	16 x 25	16 x 26	18 x 35	18 x 41									
6800	16 x 26	16 x 31	16 x 35											
10000	16 x 31	18 x 25												

■ **PERMISSIBLE RIPPLE CURRENT**

mA (rms) at 120Hz 105°C

uF \ WV	mA (rms) at 120Hz 105°C													
	6.3	10	16	25	35	50	63	100	160	200	250	350	400	
0.1					]	5	5	5					
0.22					]	6	7	7					
0.33					]	7	8	8					
0.47					]	9	10	11	18	13	13	12	13
1					]	13	14	16	26	19	20	19	19
2.2					]	22	23	24	34	28	34	29	32
3.3					]	27	28	30	44	36	44	38	44
4.7					]	32	34	37	56	45	53	55	57
10		]	30	40	43	48	50	53	105	60	62	73	78
22	]	35	43	60	63	75	84	100	130	120	130	135	145
33	]	44	50	80	75	90	110	125	170	150	160	175	185
47	]	70	90	105	110	120	130	155	280	185	200	220	230
100	100	115	130	140	180	200	235	250	450	290	320	340		
220	170	180	220	230	310	360	405	430	690	500				
330	220	255	280	340	400	480	540	650	810					
470	280	310	370	450	530	630	700	780						
1000	470	560	660	800	960	1040	1150	1400						
2200	820	920	1000	1190	1380	1610	1800							
3300	1010	1170	1290	1500	1730	1850								
4700	1300	1370	1500	1820	2050									
6800	1460	1680	1740											
10000	1750	1920												