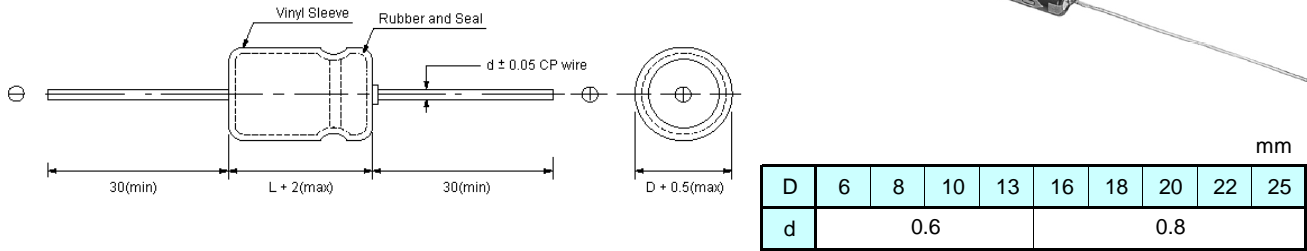


■ FEATURES

- ♦ Load life of 2000 hours at 105°C
- ♦ Low impedance and low ESR with high ripple current at high frequency
- ♦ Applications for output of switching power supplies and mother board

■ OUTLINE



■ SPECIFICATIONS

Items	Characteristics							
Capacitance Tolerance (120Hz, 25°C)	± 20% (M)							
Rated Working Voltage Range	6.3 ~ 50Vdc							
Operation Temperature	-40°C ~ +105°C							
Leakage Current (25°C)	(After 2 minutes applying the DC working voltage)							
	I ≤ 0.01CV or 3 (μA)							
	♦ I : Leakage Current (μA)		♦ C : Rated Capacitance (μF)			♦ V : Working Voltage (V)		
Surge Voltage (25°C)	W.V.	6.3	10	16	25	35	50	
	S.V.	8	13	20	32	44	63	
Dissipation Factor (120Hz, 25°C)	W.V.	6.3	10	16	25	35	50	
	tan δ	0.22	0.19	0.16	0.14	0.12	0.10	
♦ For capacitance exceeding 1000 μF, add 0.02 per increment of 1000 μF								
Temperature Characteristics	W.V.	6.3	10	16	25	35	50	
	- 25°C / + 25°C	2	2	2	2	2	2	
	- 40°C / + 25°C	3	3	3	3	3	3	
♦ Impedance ratio at 120Hz								
Load Test	After 2000 hours application of WV at +105°C, the capacitor shall meet the following limits: (3000 hours for 10φ and larger)							
	Capacitance Change	≤ ± 20% of initial value						
	tan δ	≤ 200% of initial specified value						
	Leakage Current	≤ 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	6.3	10	16	25	35	50
4.7						6*13
10					6*13	6*13
22					6*13	6*13
33					6*13	6*13
47				6*13	6*13	6*13
100		6*13	6*16	8*16	8*16	8*16
220		8*16	8*16	8*16	10*21	10*21
330		8*16	8*16	10*21	10*21	13*21
470	8*20	8*20	10*17	10*21	13*21	13*21
1000	10*21	10*21	13*21	13*26	13*26	16*33
2200	13*21	13*21	13*26	16*33	16*36	18*36
3300	13*26	13*26	16*33	16*36	20*36	22*42

■ **RIPPLE CURRENT & IMPEDANCE**

RC: mA (rms) at 100KHz 105°C

Imp: Ω (ohm) at 100KHz 25°C

uF \ WV	Item	6.3		10		16		25		35		50	
		R.C	Imp	RC	Imp	RC	Imp	RC	Imp	RC	Imp	RC	Imp
4.7												80	1.451
10										105	1.201	110	1.116
22										145	0.620	150	0.573
33										165	0.552	210	0.515
47								140	0.480	210	0.441	255	0.412
100				150	0.460	190	0.370	240	0.285	370	0.236	460	0.201
220				275	0.276	430	0.165	470	0.150	625	0.110	830	0.103
330				450	0.155	580	0.107	690	0.087	735	0.073	1070	0.075
470	465	0.165	610	0.100	640	0.090	870	0.077	1070	0.062	1245	0.057	
1000	695	0.076	900	0.057	1065	0.050	1340	0.048	1580	0.042	1790	0.039	
2200	1405	0.041	1425	0.037	1740	0.031	1910	0.029	2330	0.026	2810	0.024	
3300	1580	0.035	1800	0.029	1930	0.027	2345	0.023	2775	0.022			

■ **RIPPLE CURRENT COEFFICIENTS**

Temperature(°C)	45	65	85	105
Multiplier	2.40	2.15	1.70	1.00

uF \ Hz	60(50)	120	1K	10K	100K
	4.7 ~ 33	0.35	0.45	0.75	0.90
39 ~ 330	0.60	0.70	0.85	0.95	1.00
390 ~ 1000	0.65	0.75	0.90	0.98	1.00
1200 ~ 15000	0.75	0.80	0.95	1.00	1.00