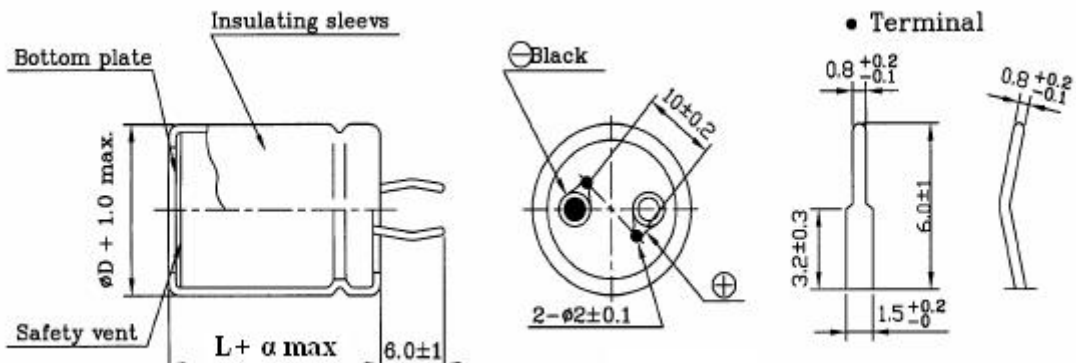


- | 105°C 5000 hours assured life.
- | Directly mountable on printed circuit board without holders.
- | Low ESR and long life.
- | Terminal spacing fixed at 10mm for PC board plug in.
- | Aluminum case designed explosion-proof vent.

**Characteristics**

<b>Voltage Range</b>	10 ~ 100V		160 ~ 400V					
<b>Capacitance Range</b>	560 ~ 4700uF		68 ~ 1500uF					
<b>Temperature Range</b>	-40 ~ +105°C		-25 ~ +105°C					
<b>Capacitance Tolerance</b>	±20% at 120Hz, 20°C ( 10% Tol. is available upon request)							
<b>Leakage Current</b>	I ≤ 0.02CV C: Capacitance, V:W.V. (After 5 minutes)							
<b>Dissipation Factor (tanδ)</b>	Rated voltage	10	16	25	35	50	63 ~ 100	160 ~ 400
	tanδ	0.55	0.40	0.30	0.25	0.20	0.15	0.15
at 20°C, 120Hz								
<b>Stability at Low Temperature</b>	Impedance ration at 120Hz between the -25°C or -40°C value and 20°C value shall not exceed the values given below.							
	Rated Voltage (V)	10, 16	25	35	50, 63	80, 00	160 ~ 400	
	Z-25°C/Z 20°C	4	3	3	2	2	4	
	Z-40°C/Z 20°C	15	10	8	6	5	-	
<b>Load Life</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after rated working voltage applied for 5,000 hours at max. Operating temperature.							
	Capacitance change	≤ ±25% of the initial value.						
	Dissipation factor	≤ ±250% of the initial specified value						
	Leakage current	≤ The initial specified value.						
<b>Shelf Life</b>	After storage for 1000 hours at 105°C with no voltage applied, the capacitor shall meet the specified limit in load life.							

**Diagram of dimensions**



**Multiplier for R.C. vs Temperature**

Temp.(°C)	45	60	70	85
Multiplier	1.55	1.3	1.2	1.00

(mm)

Dia	22	25	30	35
$\alpha$	2	2	3	3

**Multiplier for Ripple Current VS Frequency**

Cap.(uF)\ (Hz)	60	120	1K	10K	50K - 100K
10 < Cap. ≤ 100	0.8	1	1.36	1.48	1.53
100 < Cap. ≤ 1000	0.8	1	1.25	1.35	1.38
1000 < Cap.	0.8	1	1.17	1.25	1.28

**Standard Products Table**

W.V(DC)	CAP. (μF)	Ripple Current (A) max.	Dimensions A		Dimensions B		Dimensions C	
			D x L (mm)	ESR	D x L (mm)	ESR	D x L (mm)	ESR
10	6800	1.30	22x25	126	25x25	88		
	10000	1.60	22x30	98	25x25	88	30x25	75
	15000	2.10	22x35	82	25x30	68	30x25	75
	22000	2.75	22x40	68	25x35	62	30x30	48
	33000	3.40	25x50	41	30x40	30	35x35	37
	47000	4.60	30x50	28	35x50	25		-
16	5600	1.40	22x25	126		-		-
	6800	1.60	22x30	98	25x25	88		-
	10000	2.10	22x40	68	25x30	68	30x25	75
	15000	2.70	22x50	53	25x40	52	30x30	48
	22000	3.40	25x50	41	30x40	30	35x35	37
	33000	4.32	30x50	28	35x40	31		-
25	4700	1.50	22x30	98	25x25	88		-
	6800	1.87	22x40	68	25x30	68	30x25	75
	10000	2.35	22x50	41	25x40	52	30x35	36
	15000	3.15	30x40	30	35x35	37		-
	22000	3.90	35x45	29		-		-
35	2200	1.10	22x25	126		-		-
	3300	1.40	22x30	98	25x25	88		-
	4700	1.75	22x40	68	25x30	68	30x25	75
	6800	2.20	22x50	53	25x40	52	30x35	36
	10000	2.80	30x40	30	35x35	37		-
	15000	4.25	35x50	25		-		-
50	2200	1.30	22x35	82	25x25	88		-
	3300	1.70	22x40	68	25x35	62	30x30	48
	4700	2.10	25x40	52	30x35	36		-
	6800	2.70	30x50	28	35x40	31		-
	10000	3.50	35x50	25		-		-
63	1000	1.00	22x25	126		-		-
	1500	1.30	22x35	82	25x30	68		-
	2200	1.65	22x45	62	25x35	62	30x30	48
	3300	2.15	25x50	41	30x35	36		-
	4700	2.70	30x50	28	35x40	31		-
	6800	3.50	35x50	25		-		-
80	680	0.95	22x25	148		-		-
	1000	1.20	22x35	98	25x25	115		-
	1500	1.60	22x45	48	25x35	65	30x25	82
	2200	2.05	25x50	43	30x35	52		-
	3300	2.70	30x50	28	35x40	28		-
	4700	3.40	35x50	22		-		-

**Standard Products Table**

W.V(DC)	CAP. (μF)	Ripple Current (A) max.	Dimensions A		Dimensions B		Dimensions C	
			D x L (mm)	ESR	D x L (mm)	ESR	D x L (mm)	ESR
100	680	1.10	22x35	98	25x30	80	-	
	1000	1.40	22x45	75	25x35	65	30x30	58
	1500	1.85	25x50	43	30x40	41	-	
	2200	2.40	30x50	28	35x40	28	-	
160	220	0.50	22x25	565	-		-	
	330	0.80	22x35	455	25x25	525	-	
	470	1.10	22x45	380	25x35	365	30x30	315
	680	1.30	25x45	280	30x35	262	-	
	1000	1.69	30x45	300	35x35	205	-	
	1500	2.40	35x50	145	-		-	
200	180	0.57	22x25	645	-		-	
	220	0.65	22x30	565	-		-	
	330	0.90	22x40	405	25x30	415	-	
	470	1.15	22x50	405	25x40	405	30x30	405
	680	1.45	25x50	315	30x40	300	-	
	1000	1.90	25x55	235	30x45	300	35x35	205
250	150	0.52	22x25	645	-		-	
	220	0.75	22x35	455	25x30	415	-	
	330	1.00	22x45	380	25x35	365	30x30	315
	470	1.20	25x50	235	30x35	262	-	
	680	1.55	30x50	173	35x40	175	-	
	1000	2.00	35x50	145	-		-	
350	68	0.34	22x25	795	-		-	
	100	0.50	22x35	565	25x25	655	-	
	150	0.63	22x45	460	25x35	435	30x30	395
	220	0.82	25x50	305	30x35	325	-	
	330	1.10	30x50	215	35x40	225	-	
	470	1.30	35x50	175	-		-	
400	47	0.30	22x25	795	-		-	
	68	0.40	22x30	705	25x25	656	-	
	100	0.50	22x40	505	25x30	525	30x25	495
	150	0.65	22x50	385	25x40	375	30x35	325
	220	0.85	25x50	305	30x40	285	35x35	250
	330	1.10	35x45	210	-		-	
	390	1.20	35x50	175	-		-	
	470	1.45	35x50	170	-		-	

**Remark : Ripple current at 105°C 120Hz  
Max ESR at 20°C 30KHz**