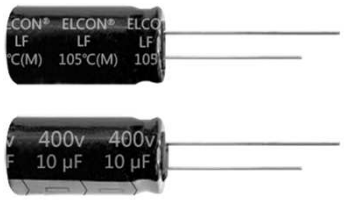
ELCON

Radial Lead Aluminum Electrolytic Capacitors

LF

Series

- 105℃ high frequency, low impedance
- 5000 hours guaranteed for ΦD≤Φ10
- 7000 hours guaranteed for ΦD≥Φ13



■SPECIFICATIONS

Item	Characteristics	
Category Temperature Range	-40 ~ +105℃ (160 ~ 400V.DC)	-25 ~ +105℃ (450V.DC)
Voltage Range	160 ~ 450 V.DC	
Nominal Cap. Range	3.3 ~ 330μF	
Capacitance Tolerance	± 20 % (at 120Hz , 20℃)	
Leakage Current		

	After 1 min	After 5 min
CV≤1000	I=0.1CV+40(μA)	I=0.03CV+15(μA)
CV＞1000	I=0.04CV+100(μA)	I=0.02CV+25(μA)

where, I: max leakage current (μA), C: Nominal capacitance (μF), V:Rated voltage (V) (at 20℃)

Dissipation Factor (MAX) (tanδ) (at 120Hz ,20℃)

W.V.	160~250	350、400	450
tanδ	0.20	0.24	0.24

Low Temp.Impedance Stability at 120Hz

W.V.	160~250	350、400	450
Z-25℃ / Z+20℃	3	5	6
Z-40℃ / Z+20℃	6	6	---

Endurance

After ΦD≤Φ10:5000 hours, ΦD≥Φ13:7000 hours application of DC rated working voltage at 105℃,the capacitor shall meet the following limits.

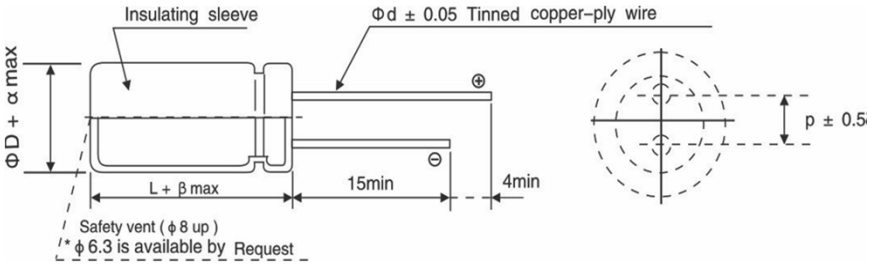
Capacitance change	≤ ±20% of the initial value
Dissipation Factor	≤ 200% of the initial specified value
Leakage Current	≤ the initial specified value

Shelf Life

After storage for 1000 hours at 105℃ with no voltage applied,voltage treatment of of JIS-C-5102 article 4-4 is to be given and then measurement shall be made, the capacitor shall meet the following limits.

Capacitance Change	≤ ±20% of the initial value
Dissipation Factor	≤ 200% of the initial specified value
Leakage Current	≤ 500% of the initial specified value

■ DRAWING



Unit: (mm)

ΦD	10	13	16	18
P	5.0	5.0	7.5	7.5
Φd	0.6		0.8	
β	1.5			
α	0.5			

■ MULTIPLIER FOR RIPPLE CURRENT

(1) Frequency Coefficient

Freq.(Hz) / Cap.(μF)	60(50)	120	1K	10K	100K
3.3~47	0.70	0.85	0.90	0.95	1.00
68~330	0.75	0.90	0.95	0.98	1.00

(2) Temperature Coefficient

Ambient Temperature(℃)	40	60	70	85	105
Coefficient	2.40	2.10	1.78	1.65	1.00

LF Series

■STANDARD RATINGS

WV(vdc) / Parameter / Cap.(μF)	160			200		
	ΦDxL(mm)	Impedance(Ω) 20℃,100KHz	Ripple Current (mArms) 105℃,100KHz	ΦDxL(mm)	Impedance(Ω) 20℃,100KHz	Ripple Current (mArms) 105℃,100KHz
22				10x20	1.88	440
33	10x20	1.63	565	13x20	1.14	590
47	13x20	1.14	725	13x20	1.14	780
68	13x25	0.79	950	13x25	0.79	950
100	16x25	0.34	1280	16x25	0.34	1280
150	16x31	0.28	1300	16x25	0.37	1300
220	16x31	0.28	1300	18x32	0.28	1700
330	18x32	0.28	1700			

WV(vdc) / Parameter / Cap.(μF)	250			350		
	ΦDxL(mm)	Impedance(Ω) 20℃,100KHz	Ripple Current (mArms) 105℃,100KHz	ΦDxL(mm)	Impedance(Ω) 20℃,100KHz	Ripple Current (mArms) 105℃,100KHz
10	10x20	4.38	300			
22	13x20	2.88	480	13x20	2.63	270
33	13x25	2.13	630	16x20	1.14	600
47	13x25	2.13	630	16x25	1.14	700
68	16x25	0.98	1000	16x31	0.61	1100
100	16x31	0.79	1400	18x32	0.5	1170
150	18x32	0.53	1450			

WV(vdc) / Parameter / Cap.(μF)	400			450		
	ΦDxL(mm)	Impedance(Ω) 20℃,100KHz	Ripple Current (mArms) 105℃,100KHz	ΦDxL(mm)	Impedance(Ω) 20℃,100KHz	Ripple Current (mArms) 105℃,100KHz
3.3				10x20	7.8	150
4.7				13x20	4.5	200
10	10x20	3.62	180	13x25	3.13	315
22	13x25	1.62	300	16x25	2.13	570
33	16x20	1.5	600	16x31	1.88	620
47	16x25	1.25	700	18x32	1.63	900
68	16x40	1	1050	18x36	1.06	980
	18x36	0.94	1100			