

LE Series 105°C 12000~20000 hours

Features

- ◆ Ultra Long life
- ◆ For LED lighting
- ◆ ROHS compliant

FL long life → LE



Specifications

Item	Performance Characteristics			
Operating Temperature Range	-40~+105℃			
Rated Voltage Range	160~450 ≥VDC			
Capacitance Range	1 to 68 μ F			
Capacitance Tolerance	± 20%(120Hz,+20℃)			
Leakage Current (+20℃,max.)	(CV≤1000)	(CV>1000)	After 1minute with rated working voltage applied. C: rated Capacitance (μ F) , V: working voltage(V)	
	1≤0.1CV+40(μ A)	1≤0.04CV+100(μ A)		
Dissipation Factor (tan δ , at 20℃ , 120Hz)	Less than the value under table			
	Cap(μ F)) / W.v.(V)	160~450		
	tan δ	24%		
Low Temperature Characteristics (at 120Hz)	Impedance ratio max			
	Working voltage(V)	< 250	250~400	450
	Z-25℃ / Z+20℃	3	6	8
	Z-40℃ / Z+20℃	8	10	12
Endurance	Test condition			
	Duration time	:As right		
	Ambient temperature	:+105℃		
	Applied voltage	:Rated DC working voltage		
			6.3X11,8X9,10X9	12000hours
		8X11.5,10X12.5	15000hours	
		10X16 or more	20000hours	
	After test requirement at +20℃			
	Capacitance change	: Within±30% of the initial measured value		
	Dissipation factor	: Not more than 300% of the initial specified value		
	Leakage current	: Not more than The initial specified value		
Shelf Life	Test condition			
	Duration time	:1000 Hrs		
	Ambient temperature	:+105℃		
	Applied voltage	:None		
		After test requirement at +20℃:Same limits as Endurance.		
	Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.			

Radial

Multiplier for Ripple Current vs. Frequency

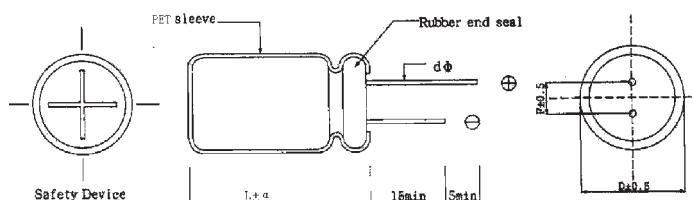
160~400V.DC

Frequency(Hz)		120	1K	10K	100K
Coefficient	1~5.6 μ F	1.0	1.6	1.8	2.0
	6.8~18 μ F	1.0	1.5	1.7	1.9
	22~33 μ F	1.0	1.4	1.6	1.8

≥450V.DC

Frequency(Hz)		120	1K	10K	100K
Coefficient	4.7~15 μF	0.3	0.6	0.9	1.0
	22~68 μF	0.4	0.7	0.9	1.0

Diagram of Dimensions:(unit:mm)



D φ	6.3	8	10	13	16	18
F	2.5	3.5	5.0	5.0	7.5	7.5
d φ	0.5		0.6		0.8	

α	$D < 16$	$D = 16$		$D = 18$		$D > 18$
		$L: 25 \sim 35.5$	$L < 25$ and $L \geq 40$	$L: 25 \sim 31.5$	$L < 25$ and $L \geq 35.5$	
	1.5	1.5	2.0	1.5	2.0	2.0

Case Size

WV (Vdc)	Cap (uF)	Size (mm)	Rated Ripple current (mArms/105°C /120Hz)	Rated Ripple current (mArms/105°C /100KHz)
160	5.6	6.3x11	53	106
160	10	8x9	71	135
160	15	8x11.5	93	177
160	15	10x9	96	182
160	22	10x12.5	122	220
160	33	10x16	159	286
200	2.2	6.3x11	37	74
200	3.3	6.3x11	43	86
200	4.7	6.3x11	50	100
200	5.6	8x9	57	114
200	6.8	8x9	63	120
200	8.2	8x9	67	127
200	10	8x11.5	81	154
200	12	10x9	89	169
200	18	10x12.5	114	217
200	27	10x16	150	49
250	1.8	6.3x11	34	68
250	2.2	6.3x11	37	74
250	3.3	6.3x11	43	86
250	4.7	8x9	54	108
250	5.6	8x11.5	63	126
250	6.8	8x11.5	69	131
250	8.2	10x9	77	146
250	10	10x12.5	91	173
250	12	10x12.5	98	186

WV (Vdc)	Cap (uF)	Size (mm)	Rated Ripple current (mArms/105°C /120Hz)	Rated Ripple current (mArms/105°C /100KHz)
250	18	10x16	128	243
400	1	6.3x11	25	50
400	1.2	8x9	29	58
400	1.5	8x9	31	62
400	1.8	8x9	34	68
400	2.2	8x9	37	74
400	2.2	8x11.5	41	82
400	2.7	8x11.5	44	88
400	3.3	8x11.5	48	96
400	3.3	10x9	49	98
400	3.9	10x12.5	58	116
400	4.7	10x12.5	62	124
400	6.8	10x16	86	163
450	4.7	10x16	55	183
450	4.7	10x20	67	223
450	6.8	10x20	85	283
450	8.2	10x20	85	283
450	10	13x20	136	453
450	15	13x25	181	603
450	22	13x25	241	603
450	22	16x20	293	733
450	33	16x25	321	803
450	33	18x20	313	783
450	47	18x25	481	1203
450	68	18x31.5	521	1303