

CL series

- 105°C 2000hours Life.
- Suitable for lighting and power charger.
- RoHS Compliance.
- 105°C 2000hours產品。
- 適用於照明設備及電源充電器。



SPECIFICATIONS

Items 項目	Characteristics 特性				
Capacitance Tolerance 靜電容量誤差	± 20%(120Hz,20°C)				
Operating Temperature Range 適用溫度範圍	-40 ~ +105°C				
Rated Voltage Range 額定電壓範圍	160~400VDC				
Capacitance Range 靜電容量範圍	2.2 ~ 82μF				
Leakage Current 洩漏電流	$I \leq 0.04CV + 100(\mu A)$ (After 2 minutes application of DC rated voltage, at 20°C)				
Dissipation Factor 散逸因素(tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C				
	Rated Voltage(V)	160~250	400		
	tan δ(Max)	0.2	0.25		
Low Temperature Stability 低溫特性 Impedance Ratio(Max) 阻抗比率(最大值)	Measurement Frequency: 120Hz.				
	Rated Voltage(V)	160	200	250	400
	Z(-25°C)/Z(20°C)	3	3	3	6
	Z(-40°C)/Z(20°C)	6	6	6	10
Load Life 負荷壽命	2000hours,with application of rated voltage at 105°C				
	Capacitance Change	Within ± 20% of Initial Value			
	tan δ	200% or less of Initial Specified Value			
	Leakage Current	Initial Specified Value or less			
Shelf Life 放置壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 hours 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.				
	Capacitance Change	Within ± 20% of Initial Value			
	tan δ	200% or less of Initial Specified Value			
	Leakage Current	Initial Specified Value or less			
Resistance to Soldering Heat 焊錫耐熱性	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature they meet the characteristics requirements listed at right.		Capacitance Change	Within ± 10% of Initial Value	
			tan δ	Initial Specified Value	
			Leakage Current	Initial Specified Value or less	
Marking 標識	JIS C 5101-4-1 (IEC 60384)				

Frequency Coefficient of Permissible Ripple Current

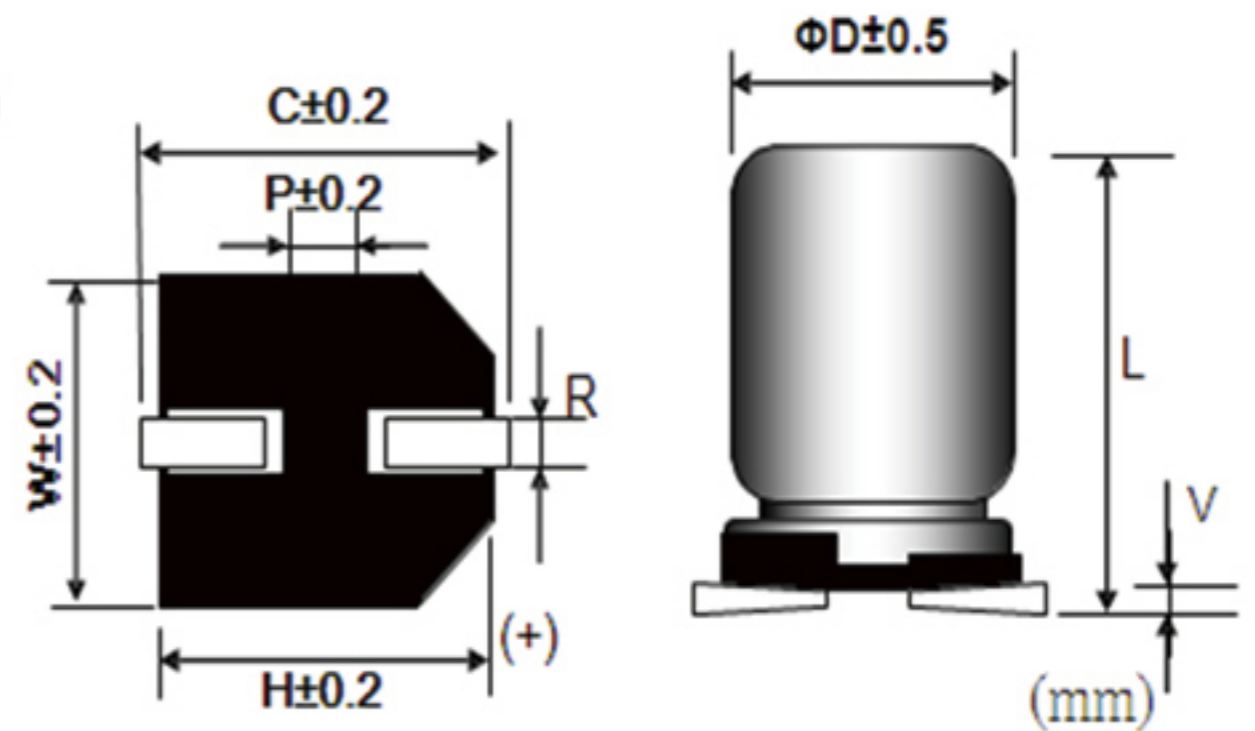
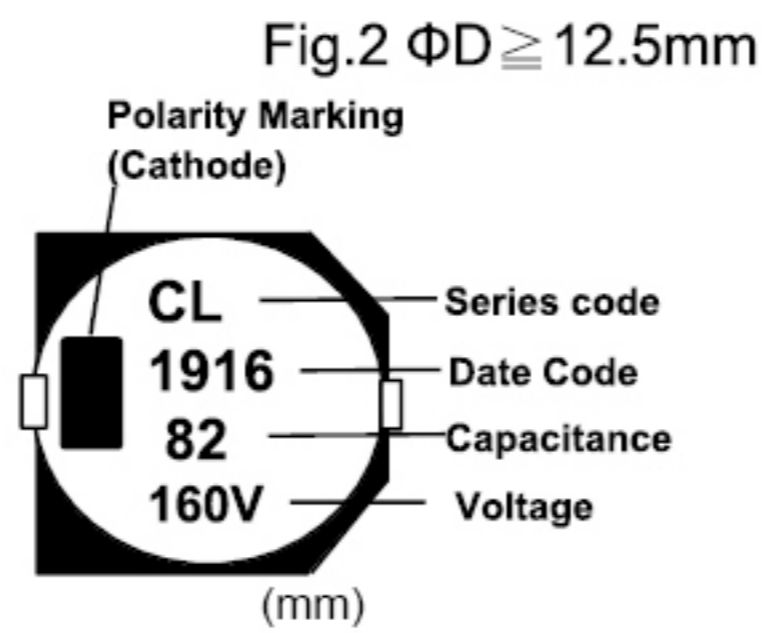
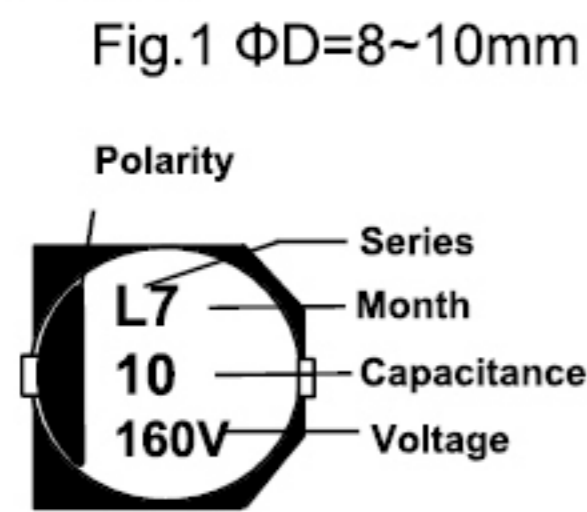
Frequency (Hz)	50	120	300	1K	≥10K
Capacitance (μF)					
2.2 ~ 6.8	0.70	1.00	1.17	1.36	1.50

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use , the rms ripple current has to be reduced.

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DIMENSIONS(mm)

Chip Type



Size	ΦD	$L \pm 0.5$	W	H	C	R	P	V_{max}
8×10.5	8.0	10.5	8.3	8.3	9.0	0.7~1.1	3.2	0.3
10×10.5	10.0	10.5	10.3	10.3	11.0	1.0~1.3	4.5	0.3
12.5×13.5	12.5	13.5	13.0	13.0	13.7	1.1~1.4	4.5	0.4
16×16.5	16.0	16.5	17.0	17.0	18.0	1.4~1.8	6.4	0.4

STANDARD RATINGS

D×L(mm) ; R.C.(mA rms) at 105°C 120Hz.

Cap (µF)	V	160		200		250		400	
		Item	D x L	R.C.	DxL	R.C.	D x L	R.C.	D x L
2.2								8x10.5	25
3.3						8x10.5	31	10x10.5	36
4.7						8x10.5	37	10x10.5	38
6.8						8x10.5	44	12.5x13.5	47
10		8x10.5	57	10x10.5	64	10x10.5	64	12.5x13.5	57
22		12.5x13.5	112	12.5x13.5	112	12.5x13.5	112	16x16.5	115
33		12.5x13.5	137	12.5x13.5	137	16x16.5	150		
47		16x16.5	180	16x16.5	180	16x16.5	180		
68		16x16.5	215	16x16.5	215				
82		16x16.5	235						