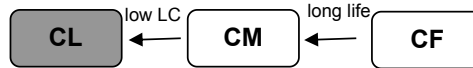
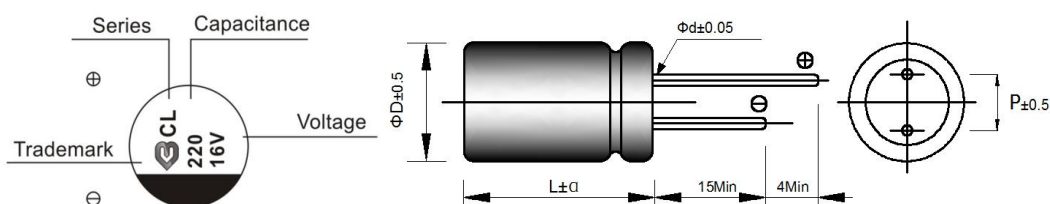


CL Series

- Ultra low impedance, high ripple, miniaturized, low leakage
- Load life of 5000 hours at 105°C
- RoHS Compliant

**规格表 Specifications**

项目 Items	特性参数 Characteristics		
使用温度范围 Category Temperture Range	-55 ~ +105℃		
额定工作电压范围 Rated Voltage Range	6.3 ~ 25V		
静电容量允许偏差 Capacitance tolerance	±20%(M) (at 20℃,120Hz)		
漏电流 Leakage Current	施加额定工作电压2分钟后读数，小于或等于规格值 (20℃) I≤0.04CV 或80μA（取大值）（The bigger）（The bigger） After 2 minutes applied for rated voltage at 20℃, less than or equal to the specified value.		
损耗角正切值tanδ Dissipation Factor	Rated voltage (V)	6.3~25	(at 20℃,120Hz)
	tanδ (Max.)	0.10	
温度特性 Low Temperture Characteristics (Max.Impedance Ratio)	Z(-25℃)/Z(+20℃)	≤1.25	(100KHz)
	Z(-55℃)/Z(+20℃)	≤1.25	
耐久性 Endurance	105℃施加额定工作电压5000小时，恢复到20℃后，产品性能应满足以下要求 The specifications listed below shall be met when the capacitors are restored to 20℃ after the rated voltage is applied for 5000 hours at 105℃.		
	Appearance	No significant damage	
	Capacitance change	≤±20% of the initial value	
	D.F.(tanδ)	≤150% of the specified value	
	ESR	≤150% of the specified value	
	Leakage current	≤The specified value	
耐湿负荷特性 Damp Heat (Steady State)	在60℃ 温度，湿度90%~95%RH的环境中，施加额定电压1000小时后，恢复到20℃后，产品性能应满足以下要求 The specifications listed below shall be met when the capacitors are restored to 20℃ after the rated voltage is applied for 1000 hours at 60℃, 90%~ 95% RH.		
	Appearance	No significant damage	
	Capacitance change	≤±20% of the initial value	
	D.F.(tanδ)	≤150% of the specified value	
	ESR	≤150% of the specified value	
	Leakage current	≤The specified value	
浪涌电压特性 (Surge Voltage)	浪涌电压=额定电压* 1.15(V) Surge Voltage=Rated voltage * 1.15(V) 在105℃环境中，按充电30秒，放电5分30秒，连续施加浪涌电压1000次(Rc=1kΩ)，待恢复后测试，应满足以下要求 The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltages specified at 105℃ for 30 seconds through a protective resistor (Rc=1kΩ) and discharge for 5 minutes 30 seconds		
	Appearance	No significant damage	
	Capacitance change	≤±20% of the initial value	
	D.F.(tanδ)	≤150% of the specified value	
	ESR	≤150% of the specified value	
	Leakage current	≤The specified value	

外形图 Dimensions (mm)

ΦD	5	6.3	8	10
P	2	2.5	3.5	5
Φd	0.5	0.5	0.6	0.6
a	L<16mm: 1.0			
	L≥16mm: 2.0			

CL Series

◆ 尺寸与最大纹波电流一览表 Standard Ratings

Rated voltage (V)	Rated capacitance(uF)	Case size D*L(mm)	Φ	ESR(mΩ) ℃, 100 KHz	at 20	Rated ripple current (mA rms/105℃/100kHz)
6.3 (0J)	180	5*8		20		2690
	220	5*8		18		3100
	220	6.3*8		15		3100
	270	6.3*8		15		3100
	330	6.3*8		15		3100
	470	6.3*8		15		3100
	330	8*8		8		5200
	390	8*8		8		5200
	470	8*8		8		5200
	560	8*8		8		5200
	680	8*8		8		5200
	820	8*8		8		5200
	1000	8*8		9		5200
10 (1A)	100	5*8		18		2690
	150	5*8		18		2690
	180	5*8		18		2690
	150	6.3*8		15		4100
	220	6.3*8		15		4100
	270	6.3*8		15		4100
	330	6.3*8		15		4100
	470	8*8		12		4100
	560	8*8		12		4100
16 (1C)	56	5*8		20		2690
	100	5*8		20		2690
	100	6.3*8		15		2900
	150	6.3*8		15		2900
	180	8*8		12		4000
	220	8*8		12		4000
	330	8*8		12		4000
25 (1E)	10	5*8		25		2670
	10	6.3*8		20		2670
	22	6.3*8		20		2670
	33	8*8		20		2900

◆ 纹波电流修正系数 Rated Ripple Current Coefficient

频率 Frequency(Hz)	120Hz≤f<1kHz	1kHz≤f<10kHz	10kHz≤f<100kHz	100kHz≤f<500kHz
系数 Coefficient	0.05	0.30	0.70	1.00