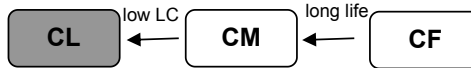


CL Series

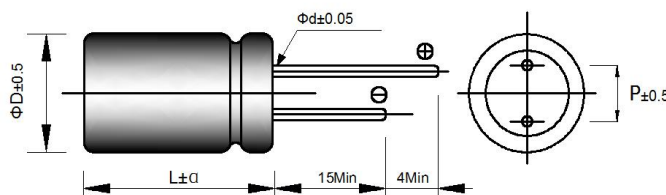
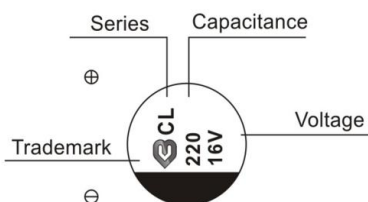
- Ultra low impedance, high ripple, miniaturized, low leakage
- Load life of 5000 hours at 105°C
- RoHS Compliant



◆ 规格表 Specifications

项目 Items	特性参数 Characteristics	
使用温度范围 Category Temperature Range	-55 ~ +105°C	
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°C,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°C) I≤0.04CV 或 80μA (取大值) (The bigger) (The bigger) After 2 minutes applied for rated voltage at 20°C, less than or equal to the specified value.	
损耗角正切值 tanδ Dissipation Factor	Rated voltage (V)	6.3~25
	tanδ (Max.)	0.10
温度特性 Low Temperature Characteristics (Max.Impedance Ratio)	Z(-25°C)/Z(+20°C)	≤1.25
	Z(-55°C)/Z(+20°C)	≤1.25
耐久性 Endurance	105°C施加额定工作电压5000小时, 恢复到20°C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°C after the rated voltage is applied for 5000 hours at 105°C.	
	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°C 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°C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°C after the rated voltage is applied for 1000 hours at 60°C, 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°C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°C 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
α	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) at 20 ℃, 100 KHz	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