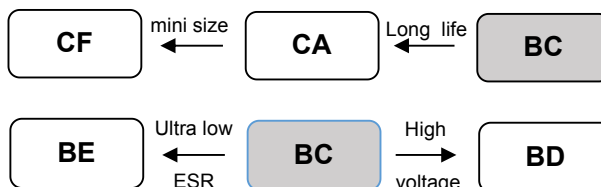


BC Series

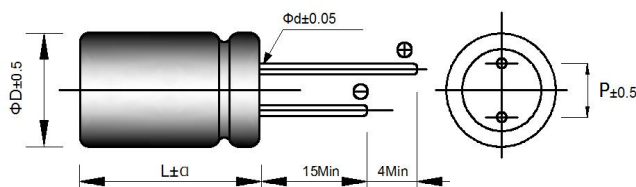
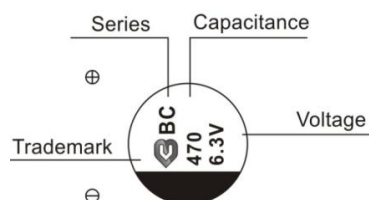
- low impedance, high ripple current
- Load life of 2000 hours at 105°C
- RoHS Compliant

◆ 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	2.5 ~ 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≤0.2CV 或280μA（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)	2.5~25	(at 20℃,120Hz)
	tanδ (Max.)	0.12	
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2000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 2000 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	5.5	6.3	8	10
P	2	2.5	2.5	3.5	5
Φd	0.5	0.5	0.5	0.6	0.6
a	L<16mm: 1.0				
	L≥16mm: 2.0				

BC Series◆ 尺寸与最大纹波电流一览表 **Standard Ratings**

Rated voltage (V)	Rated capacitance(uF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)
2.5 (0B)	560	6.3*8	20	2690
	820	6.3*8	18	2690
	820	8*8	12	4100
	1000	8*8	12	5700
4 (0G)	330	5*7	20	2690
	560	6.3*8	18	2690
	820	8*8	14	4100
6.3 (0J)	220	5*6	20	2000
	220	5*7	20	2500
	270	5*7	20	3100
	330	5*7	20	3100
	330	6.3*7	18	3100
	390	5*9	20	2500
	470	5.5*9	20	2500
	470	6.3*8	18	3100
	560	6.3*8	18	3100
	560	8*8	18	4100
	680	6.3*8	16	3100
	680	8*8	16	4100
	820	6.3*9	18	3100
	820	8*8	16	3800
	1000	6.3*11	15	3100
	1000	8*8	15	4100
	1500	8*12	14	4100
	1500	10*12	14	5330
	2200	10*12	14	5330
7.5 (0P)	220	5*7	22	2500
	470	6.3*11	16	3500
	500	5*9	16	3100
	500	6.3*11	16	3500
	680	8*8	16	4100
10 (1A)	150	5*7	22	2000
	220	6.3*8	18	2800
	270	6.3*8	18	3100
	330	6.3*8	16	4100
	470	8*8	16	4100
	680	8*8	15	4100
	820	8*12	14	4100
	1000	8*12	16	4100
	1000	10*12	13	4500
	1200	10*12	13	4500

◆ 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

BC Series◆ 尺寸与最大纹波电流一览表 **Standard Ratings**

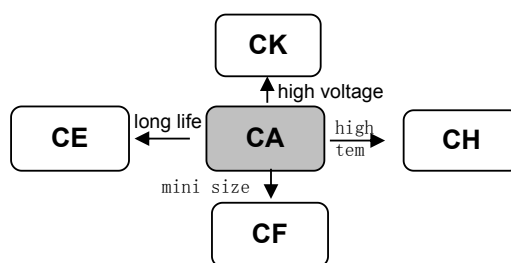
Rated voltage (V)	Rated capacitance(uF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)
16 (1C)	82	5*7	22	1500
	100	6.3*8	18	2500
	150	6.3*8	18	2500
	220	5.5*9	18	2200
	220	6.3*7	16	2900
	220	8*8	15	4100
	270	6.3*8	20	2800
	270	8*8	15	4500
	330	6.3*9	18	3100
	330	8*8	18	3100
	470	5.5*10	20	2700
	470	6.3*9	18	3100
	470	8*8	14	3400
	470	8*12	14	4100
	470	10*12	13	5100
	560	8*12	13	3800
	680	8*12	16	3500
	680	10*12	13	5250
	820	8*12	13	3600
	820	10*12	13	5250
	1000	8*12	13	4100
	1000	10*12	13	5250
20 (1D)	220	6.3*8	35	2200
	330	8*12	25	3100
	470	8*12	25	3500
	680	10*12	25	3800
25 (1E)	22	5*7	50	1300
	33	6.3*8	40	1500
	47	6.3*8	40	2900
	68	6.3*8	40	2900
	100	8*8	40	3100
	150	8*8	35	3100
	220	8*12	15	4420
	220	10*12	15	4560
	330	8*12	18	3000
	330	10*12	15	4850
	470	8*12	20	4100
	680	10*12	15	4100

◆ 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

CA Series

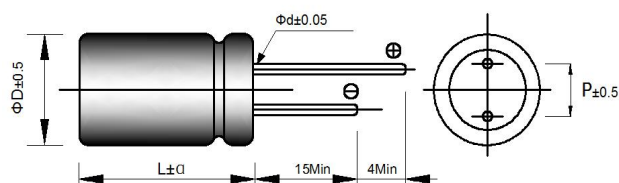
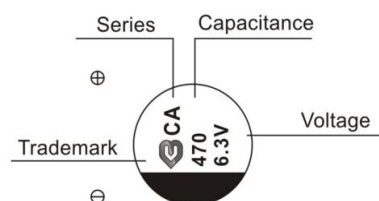
- Low impedance, high ripple current
- Load life of 3000 hours at 105°C
- RoHS Compliant



◆ 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	2.5 ~ 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≤0.15CV Less than or equal to the specified value. After 2 minute's applied for rated Voltage at 20℃		
损耗角正切值tanδ Dissipation Factor	Rated voltage (V)	2.5~25	(at 20℃,120Hz)
	tanδ (Max.)	0.12	
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3000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 thecapacitors are restored to 20℃ after the rated voltage is applied for 3000 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			

CA Series

◆ 尺寸与最大纹波电流一览表 Standard Ratings

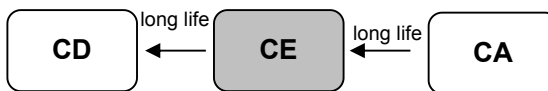
Rated voltage (V)	Rated capacitance(μF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)
2.5 (0E)	680	8*12	10	5330
	820	8*12	10	5330
	1500	10*12	10	5600
4 (0G)	560	8*12	10	5330
	1200	10*12	10	5600
6.3 (0J)	820	6.3*11	16	3500
	680	8*12	12	4820
	1000	8*12	12	4820
	820	10*12	10	5600
	1000	10*12	10	5400
	1500	10*12	10	5600
10 (1A)	330	6.3*11	16	2000
	560	8*12	12	4500
	1000	8*12	12	4500
	820	10*12	12	6100
	1000	10*12	12	6100
	1500	10*12	12	6100
16 (1C)	220	6.3*11	25	2500
	330	8*12	13	4800
	470	8*12	13	4800
	560	8*12	13	4800
	560	10*12	13	5250
	1000	10*12	13	5250
20 (1D)	100	8*12	30	2750
	150	10*12	25	2900
25 (1E)	82	5*11	55	1500
	150	6.3*11	55	1500
	47	8*12	24	2320
	68	8*12	24	3320
	270	8*12	15	4900
	330	10*12	15	4900
	470	10*12	15	4900

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

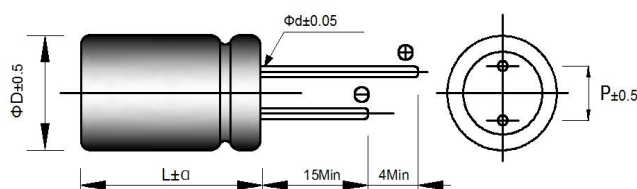
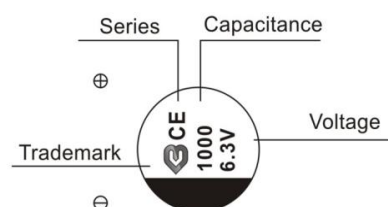
频率 Frequency(Hz)	120Hz≤f<1kHz	1kHz≤f<10kHz	10kHz≤f<100kHz	100kHz≤f<500kHz
系数 Coefficient	0.05	0.30	0.70	1.00

CE Series

- Low impedance, high ripple current, long life
- 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	2.5 ~ 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≤0.15CV (Rated Voltage 2.5~25V) Less than or equal to the specified value. After 2 minute's applied for rated Voltage at 20℃		
损耗角正切值 tanδ Dissipation Factor	Rated voltage (V)	2.5~25	(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	
Damp Heat (Steady State) 耐湿负荷特性	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			

CE Series◆ 尺寸与最大纹波电流一览表 **Standard Ratings**

Rated voltage (V)	Rated capacitance(uF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)
2.5 (0E)	680	8*12	10	5289
	820	8*12	10	5289
	1500	10*12	10	5557
4 (0G)	560	8*12	10	5289
	1200	10*12	10	5557
6.3 (0J)	220	5*11	25	2000
	680	8*12	12	4783
	1000	10*12	7	5358
	1500	10*12	10	5557
10 (1A)	270	8*12	13	4386
	560	8*12	10	5557
	1000	8*12	12	4465
	820	10*12	10	6053
	1000	10*12	10	6053
	1500	10*12	10	6053
16 (1C)	270	8*12	13	4820
	470	8*12	13	4820
	560	8*12	13	4820
	560	10*12	12	4900
	1000	10*12	12	4900
20 (1D)	100	8*12	30	2729
	150	10*12	25	2878
25 (1E)	47	8*12	24	2320
	100	8*12	15	4386
	220	8*12	25	3000
	270	10*12	15	4850
	330	10*12	15	4850

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

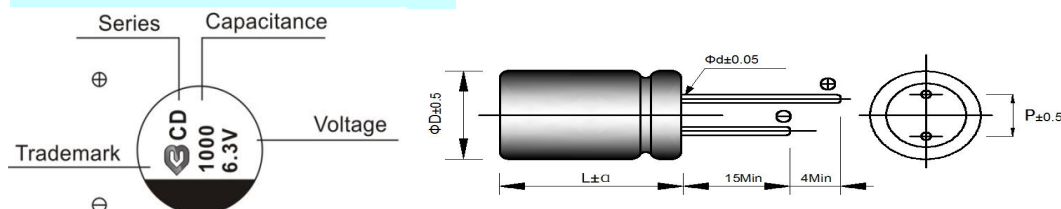
频率 Frequency(Hz)	120Hz≤f<1kHz	1kHz≤f<10kHz	10kHz≤f<100kHz	100kHz≤f<500kHz
系数 Coefficient	0.05	0.30	0.70	1.00

CD Series

- Ultra low impedance, high ripple current, long life
- Load life of 10000 hours at 105℃
- 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	2.5 ~ 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≤0.15CV Less than or equal to the specified value. After 2 minute's applied for rated Voltage at 20℃		
损耗角正切值tanδ Dissipation Factor	Rated voltage (V)	2.5~25	(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10000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 10000 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	
Damp Heat (Steady State) 耐湿负荷特性	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			

CD Series◆ 尺寸与最大纹波电流一览表 **Standard Ratings**

Rated voltage (V)	Rated capacitance(uF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)
2.5 (0E)	680	8*12	10	5024
	820	8*12	10	5024
	1500	10*12	10	5279
4 (0G)	560	8*12	10	5024
	1200	10*12	10	5279
6.3 (0J)	680	8*12	12	4544
	820	10*12	10	5279
	1000	10*12	8	5090
	1500	10*12	10	8279
10 (1A)	270	8*12	13	4166
	560	8*12	10	5279
	820	10*12	10	5750
	1000	8*12	12	4242
	1000	10*12	10	5750
	1500	10*12	10	5750
16 (1C)	270	8*12	13	4525
	330	8*12	13	4525
	470	8*12	13	4525
	560	10*12	13	4525
	1000	10*12	13	4525
20 (1D)	100	8*12	30	2592
	150	10*12	25	2734
25 (1E)	47	8*12	24	2500
	68	8*12	24	2500
	100	8*12	25	2500
	220	10*12	15	3500

◆ 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

BE Series **NEW**

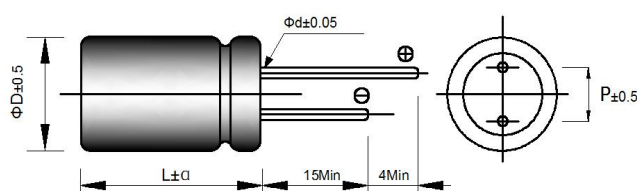
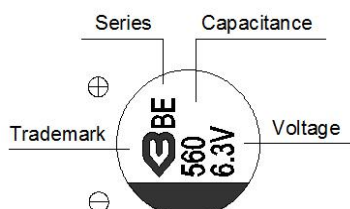
- Ultra low impedance, high ripple current
- Load life of 2000 hours at 105°C
- RoHS Compliant



◆ 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	2.5 ~ 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≤0.2CV 或280μA (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)	2.5~25	(at 20℃,120Hz)
	tanδ (Max.)	0.12	
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2000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 2000 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			

BE Series◆ 尺寸与最大纹波电流一览表 **Standard Ratings**

Rated voltage (V)	Rated capacitance(uF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz~100 KHz	Rated ripple current (mA rms/105℃/100kHz)
2.5 (0B)	560	6.3*8	8	5600
	820	6.3*8	8	5600
	1000	8*8	8	5900
4 (0G)	560	6.3*8	8	5600
	1200	8*12	8	6050
	2200	10*12	8	6200
6.3 (0J)	270	5*8	8	3700
	470	6.3*8	8	5300
	560	6.3*8	8	5300
	820	8*8	8	5900
	1000	8*12	8	5900
	1200	8*12	8	6100
	1500	10*12	8	6200
7.5 (0P)	820	6.3*11	8	5600
	1500	8*12	8	6200
10 (1A)	390	8*12	8	4900
	560	10*12	8	5800
	820	10*12	8	5800
16 (1C)	180	8*8	10	5000
	270	8*8	10	5000
	330	8*12	10	5300
	470	8*12	10	5600
	820	10*12	10	6100
25 (1E)	180	8*8	20	3800
	220	8*12	18	4600
	390	10*12	16	5100
	470	10*12	14	5300

◆ 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

CF Series

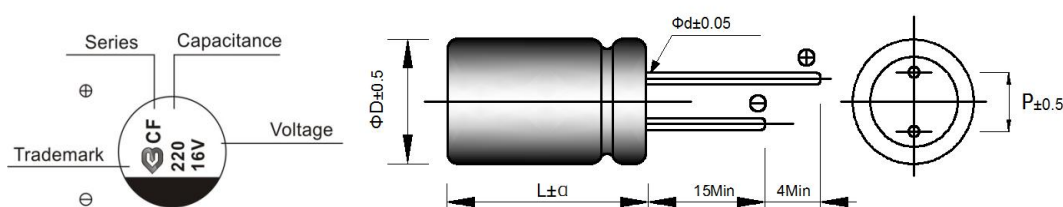
- Ultra low impedance, high ripple, miniaturized
- Load life of 3000 hours at 105℃
- RoHS Compliant



◆ 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	2.5 ~ 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≤0.15CV 或120μA（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)	2.5~25	(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 Endurence	105℃施加额定工作电压3000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 3000 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			

CF Series◆ 尺寸与最大纹波电流一览表 **Standard Ratings**

Rated voltage (V)	Rated capacitance(uF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)
2.5 (0B)	330	5*7	18	2690
	470	5*7	18	2690
	560	6.3*8	18	2690
	680	6.3*8	18	2690
4 (0G)	220	5*7	18	2690
	330	5*7	18	2690
	470	6.3*8	18	2690
	560	6.3*8	18	2690
6.3 (0J)	220	5*7	18	2500
	330	5*7	18	2500
	330	6.3*8	16	2900
	470	6.3*8	16	2900
	560	6.3*8	16	3100
	680	6.3*8	16	3100
10 (1A)	100	5*7	18	2690
	150	5*7	18	2690
	270	6.3*8	16	4100
	330	6.3*8	16	4100
16 (1C)	100	5*7	20	2690
	100	6.3*8	18	2900
	220	6.3*8	16	2900
25 (1E)	22	5*7	45	2670
	33	5*7	40	2670
	33	6.3*8	40	2900
	47	6.3*8	40	2900

◆ 纹波电流补正系数 **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

CF Series◆ 尺寸与最大纹波电流一览表 **Standard Ratings**

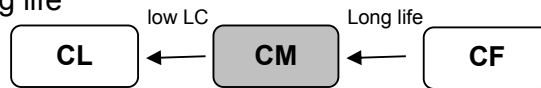
Rated voltage (V)	Rated capacitance(μF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)
2.5 (0B)	560	8*8	15	5700
	680	8*8	12	5700
	820	8*8	12	5700
	1000	8*8	12	5700
	1200	8*8	11	5700
	1500	8*8	11	5700
4 (0G)	560	8*8	12	5700
	680	8*8	12	5700
	820	8*8	12	5700
6.3 (0J)	330	8*8	17	5700
	390	8*8	15	5700
	470	8*8	15	5700
	820	8*8	12	5700
	1000	8*8	14	5700
10 (1A)	100	8*8	17	5300
	180	8*8	15	5300
	220	8*8	15	5300
	680	8*8	13	5300
16 (1C)	100	8*8	16	5000
	180	8*8	14	5000
	220	8*8	14	5000
	270	8*8	12	5000
25 (1E)	22	8*8	45	4500
	33	8*8	40	4500
	47	8*8	40	4500
	100	8*8	40	4500

◆ 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

CM Series

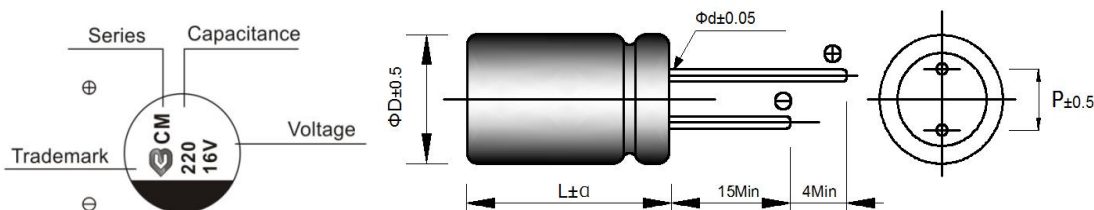
- Ultra low impedance, high ripple, miniaturized, long life
- Load life of 5000 hours at 105°C
- RoHS Compliant



◆ 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	2.5 ~ 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≤0.15CV 或120μA (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)	2.5~25	(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
α	L < 16mm: 1.0			
	L ≥ 16mm: 2.0			

CM Series◆ 尺寸与最大纹波电流一览表 **Standard Ratings**

Rated voltage (V)	Rated capacitance(uF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)
2.5 (0B)	330	5*7	18	2421
	390	5*7	18	2421
	470	5*7	18	2421
	560	5*7	18	2421
4 (0G)	220	5*7	18	2421
	270	5*7	18	2421
	330	5*7	18	2421
6.3 (0J)	180	5*7	20	2421
	220	5*7	18	2790
	330	5*7	18	2790
	270	6.3*8	18	2790
	330	6.3*8	16	2790
10 (1A)	100	5*7	18	2421
	150	5*7	18	2421
	220	6.3*8	16	3690
16 (1C)	100	5*7	20	2421
	100	6.3*8	18	2610
	150	6.3*8	18	2610
25 (1E)	10	5*7	25	1503
	22	6.3*8	25	1503

◆ 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

CM Series◆ 尺寸与最大纹波电流一览表 **Standard Ratings**

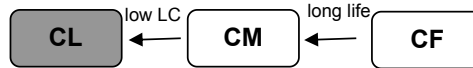
Rated voltage (V)	Rated capacitance(uF)	Case size $\Phi D \times L$ (mm)	ESR(m Ω) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)
2.5 (0B)	560	8*8	8	5415
	680	8*8	8	5415
	820	8*8	8	5415
	1000	8*8	8	5415
	1200	8*8	8	5415
4 (0G)	560	8*8	8	5415
	680	8*8	8	5415
	820	8*8	8	5415
6.3 (0J)	330	8*8	8	5415
	390	8*8	8	5415
	470	8*8	8	5415
	560	8*8	8	5415
	680	8*8	8	5415
	820	8*8	8	5415
10 (1A)	100	8*8	9	5035
	180	8*8	11	5035
	220	8*8	11	5035
16 (1C)	100	8*8	12	4750
	180	8*8	12	4750
	220	8*8	12	4750
25 (1E)	22	8*8	45	4275
	33	8*8	40	4275

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

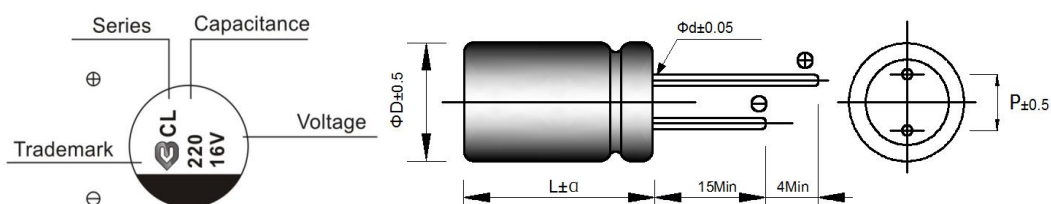
频率Frequency(Hz)	120Hz $\leq f < 1$ kHz	1kHz $\leq f < 10$ kHz	10kHz $\leq f < 100$ kHz	100kHz $\leq f < 500$ kHz
系数 Coefficient	0.05	0.30	0.70	1.00

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

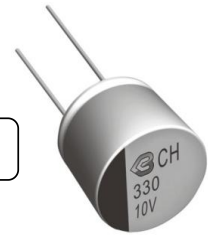
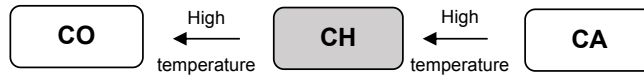
Rated voltage (V)	Rated capacitance(uF)	Case size D*L(mm)	Φ	ESR(mΩ) ℃, 100 KHz	at 20	Rated ripple current (mA rms/105℃/100kHz)
6.3 (0J)	180	5*8		20		2690
	220	5*8		18		3100
	220	6.3*8		15		3100
	270	6.3*8		15		3100
	330	6.3*8		15		3100
	470	6.3*8		15		3100
	330	8*8		8		5200
	390	8*8		8		5200
	470	8*8		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

CH Series

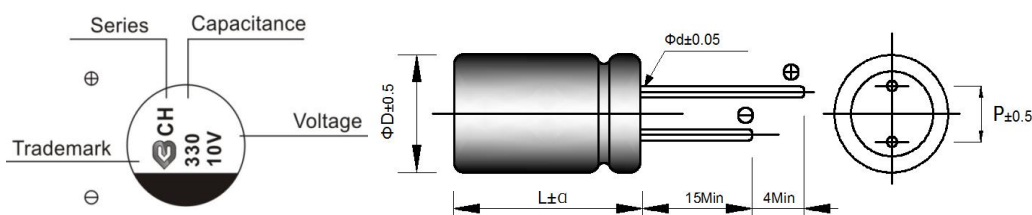
- Low impedance, high ripple, high temperature resistant
- Load life of 2000 hours at 125°C
- RoHS Compliant



◆ 规格表 Specifications

项目 Items	特性参数 Characteristics					
使用温度范围 Category Temperture Range	-55 ~ +125℃					
额定工作电压范围 Rated Voltage Range	2.5 ~ 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℃) Is0.15CV 或120μA (取大值) (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)	2.5~4	6.3	10~16	20~25	(at 20℃,120Hz)
	tanδ (Max.)	0.18	0.15	0.12	0.15	
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 Endurence	125℃施加额定工作电压2000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 2000 hours at 125℃					
	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				
Damp Heat (Steady State) 耐湿负荷特性	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125℃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 125℃ 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			

CH Series◆ 尺寸与最大纹波电流一览表 **Standard Ratings**

Rated voltage (V)	Rated capacitance(uF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)	Rated ripple current (mA _{rms} /125℃/100kHz)
2.5 (OB)	560	8*12	13	4600	1510
	820	8*12	13	4600	1510
	1200	10*12	13	5400	1700
4 (OG)	560	8*12	13	4600	1510
	820	10*12	13	5400	1700
	1200	10*12	13	5400	1700
6.3 (OJ)	470	8*12	15	4300	1400
	680	8*12	15	4300	1400
	820	10*12	12	5400	1700
7.5 (OP)	500	6.3*8	15	4300	1400
	680	8*8	15	4300	1400
	820	10*12	12	5400	1700
10 (1A)	220	8*12	18	4000	1200
	470	8*12	18	4000	1200
	560	10*12	14	5400	1600
	820	8*12	12	5100	1600
	1500	10*12	12	5100	1600
16 (1C)	180	8*12	18	3500	1100
	220	8*12	18	3500	1100
	330	10*12	16	4600	1510
20 (1D)	100	8*12	24	3500	1100
	150	10*12	20	4300	1400
25 (1E)	22	8*12	65	1200	500
	47	8*12	55	1900	790
	220	8*12	40	2100	1050
	270	10*12	40	2100	1050
	330	10*12	32	2750	1375

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

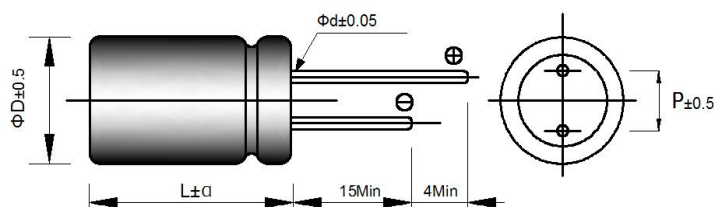
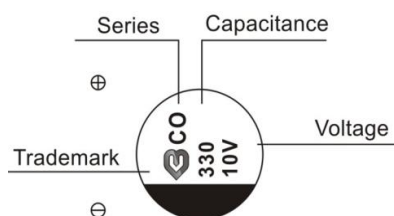
频率 Frequency(Hz)	120Hz≤f<1kHz	1kHz≤f<10kHz	10kHz≤f<100kHz	100kHz≤f<500kHz
系数 Coefficient	0.05	0.30	0.70	1.00

CO Series

- Low impedance, high ripple, high temperature 135°C resistant
- Load life of 2000 hours at 135°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 ~ +135℃					
额定工作电压范围 Rated Voltage Range	4 ~ 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≤0.15CV 或120μA（取大值）（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)	4	6.3	10~16	20~25	(at 20℃,120Hz)
	tanδ (Max.)	0.18	0.15	0.12	0.15	
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	135℃施加额定工作电压2000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 2000 hours at 135℃.					
	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				
Damp Heat (Steady State) 耐湿负荷特性	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135℃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 135℃ 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	8	10
P	3.5	5
Φd	0.6	0.6
a	L<16mm: 1.0	
	L≥ 16mm: 2.0	

CO Series◆ 尺寸与最大纹波电流一览表 **Standard Ratings**

Rated voltage (V)	Rated capacitance(uF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)	Rated ripple current (mA _{rms} /135℃/100kHz)
4 (OG)	560	8*12	13	4600	1420
	680	10*12	13	4600	1420
	820	10*12	13	5400	1560
	1200	10*12	13	5400	1560
6.3 (OJ)	470	8*12	15	4300	1300
	680	10*12	15	4300	1300
	820	10*12	12	5400	1560
10 (1A)	330	8*12	16	4000	1200
	470	10*12	16	4000	1200
	560	10*12	13	5400	1560
16 (1C)	180	8*12	18	3500	1010
	220	10*12	18	3500	1010
	330	10*12	16	4600	1400
20 (1D)	100	10*12	24	3500	1010
	150	10*12	20	4300	1300
25 (1E)	33	8*12	30	2980	1050
	47	8*12	30	2980	1050
	56	10*12	28	3800	1300
	100	10*12	28	3800	1300

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

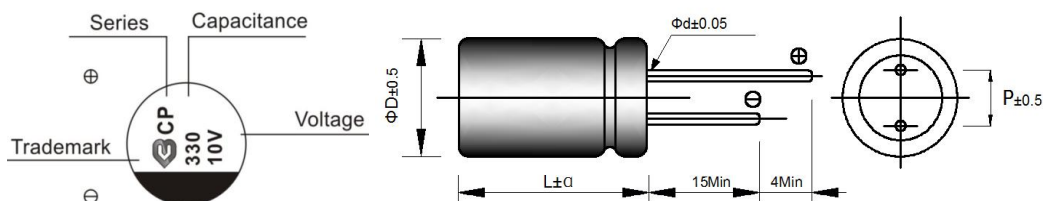
频率 Frequency(Hz)	120Hz≤f<1kHz	1kHz≤f<10kHz	10kHz≤f<100kHz	100kHz≤f<500kHz
系数 Coefficient	0.05	0.30	0.70	1.00

CP Series

- Low impedance, high ripple, high temperature 150°C resistant
- Load life of 1000 hours at 150°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 ~ +150℃					
额定工作电压范围 Rated Voltage Range	4 ~ 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≤0.15CV 或120μA（取大值）（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)	4	6.3	10~16	20~25	(at 20℃,120Hz)
	tanδ (Max.)	0.18	0.15	0.12	0.15	
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	150℃施加额定工作电压1000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 thecapacitors are restored to 20℃ after the rated voltage is applied for 1000 hours at 150℃.					
	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				
Damp Heat (Steady State) 耐湿负荷特性	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150℃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 150℃ 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	8	10
P	3.5	5
Φd	0.6	0.6
a	L<16mm: 1.0	
	L≥16mm: 2.0	

CP Series

◆ 尺寸与最大纹波电流一览表 Standard Ratings

Rated voltage (V)	Rated capacitance(uF)	Case size ΦD*L(mm)	ESR(mΩ) at 20℃, 100 KHz	Rated ripple current (mA _{rms} /105℃/100kHz)	Rated ripple current (mA _{rms} /150℃/100kHz)
4 (OG)	470	8*12	13	4600	1420
	680	10*12	13	4600	1420
	820	10*12	12	5400	1560
	1000	10*12	12	5400	1560
6.3 (OJ)	330	8*12	13	4300	1300
	470	10*12	13	4300	1300
	680	10*12	12	4300	1300
	820	10*12	12	5400	1560
10 (1A)	330	10*12	16	4000	1200
	470	10*12	16	4000	1200
	560	10*12	12	5400	1560
16 (1C)	180	10*12	16	3500	1010
	220	10*12	16	3500	1010
	330	10*12	16	4600	1400
20 (1D)	100	10*12	20	3500	1010
	150	10*12	20	4300	1300
25 (1E)	33	10*12	28	2980	1050
	47	10*12	28	3800	1300

◆ 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