

**CO Series**

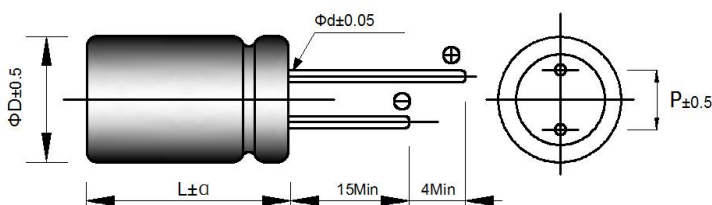
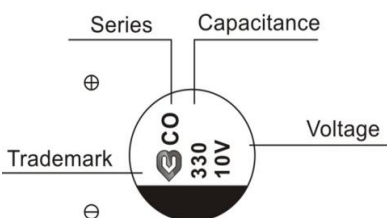
- Low impedance, high ripple, high temperature 135°C resistant
- Load life of 2000 hours at 135°C
- RoHS Compliant



◆ 规格表 Specifications

项目 Items	特性参数 Characteristics					
使用温度范围 Category Temperature Range	-55 ~ +135°C					
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°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≤0.2CV 或500μA (取大值) (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)	4	6.3	10~16	20~25	(at 20°C,120Hz)
	tanδ (Max.)	0.18	0.15	0.12	0.15	
温度特性 Low Temperature Characteristics (Max.Impedance Ratio)	Z(-25°C)/Z(+20°C)	≤1.25			(100KHz)	
	Z(-55°C)/Z(+20°C)	≤1.25				
耐久性 Endurance	135°C施加额定工作电压2000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 2000 hours at 135°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				
Damp Heat (Steady State) 耐湿负荷特性	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135°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 135°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	8	10
P	3.5	5
Φd	0.6	0.6
a	L<16mm: 1.0	
	L≥ 16mm: 2.0	

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◆ 尺寸与最大纹波电流一览表 Standard Ratings

Rated voltage (V)	Rated capacitance( $\mu$ F)	Case size $\Phi$ D*L(mm)	ESR( $m\Omega$ ) at 20°C, 100 KHz	Rated ripple current (mA <sub>rms</sub> /105°C/100kHz)	Rated ripple current (mA <sub>rms</sub> /135°C/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 $\leq$ f<1kHz	1kHz $\leq$ f<10kHz	10kHz $\leq$ f<100kHz	100kHz $\leq$ f<500kHz
系数 Coefficient	0.05	0.30	0.70	1.00