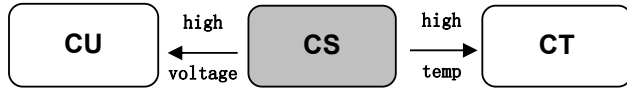


CS Series

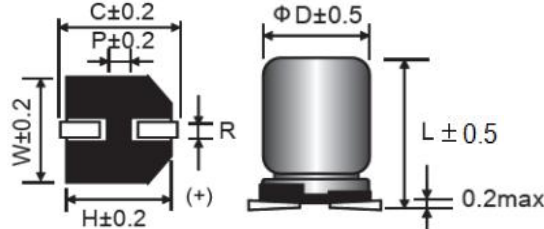
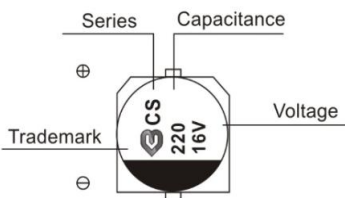
- Super low impedance, High ripple, miniaturized
- SMD type: lead free reflow soldering condition at 260°C peak correspondence
- RoHS Compliant



◆ **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	2.5 ~ 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) 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	小于或等于规格 Less than or equal to the specified (at 20°C,120Hz)		
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	105°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 satisfied when the capacitors are restored to 20°C after applying rated is applied for 2000 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	
焊接耐热性 Resistance to soldering heat	按回流焊试验后, 应满足于以下要求 After soldering the capacitor shall meet the specifications listed below.		
	Capacitance change	≤±10% of the initial value	
	D.F.(tanδ)	≤130% of the specified value	
	ESR	≤130% of the specified value	
	Leakage current	≤The specified value	

◆ **外形图 Dimensions (mm)**



ΦD	5	6.3	8	8	10	10
L	6	7	7	12.0	10.0	12.6
W	5.3	6.6	8.3	8.3	10.3	10.3
H	5.3	6.6	8.3	8.3	10.3	10.3
C	6	7.3	9.0	9.0	11.0	11.0
R	0.5~0.8	0.5~0.8	0.8~1.1	0.8~1.1	0.8~1.1	0.8~1.1
P	1.4	2.1	3.2	3.2	4.6	4.6

CS 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)	Leakage current (μA)	tanδ (120Hz)	ESR(mΩ) at 20°C, 100 KHz	Rated ripple current (mA _{rms} /105°C\100kHz)
2.5 (0E)	82	5*6	300.0	0.12	25	2800
	180	6.3*6	300.0	0.12	25	2690
	330	6.3*6	300.0	0.12	25	2400
	390	6.3*7	300.0	0.12	20	2800
	470	6.3*7	300.0	0.12	20	3200
	560	6.3*8	300.0	0.12	20	3200
	560	6.3*7	300.0	0.12	25	2350
	680	6.3*9.7	350.0	0.12	20	4300
	820	6.3*9.7	410.0	0.12	20	3500
	1000	8*9.7	500.0	0.12	15	4260
	1200	8*9.7	600.0	0.12	15	5100
	1500	8*9.7	750.0	0.12	15	5200
2700	10*12.6	1350.0	0.12	13	5200	
4 (0G)	68	5*6	300.0	0.12	20	2730
	150	6.3*6	300.0	0.12	22	2570
	270	6.3*7	300.0	0.12	22	3220
	560	8*7.5	300.0	0.12	22	3220
	680	6.3*9.7	544.0	0.12	19	3200
	680	8*9.7	544.0	0.12	16	3800
	820	8*9.7	656.0	0.12	19	3800
	1000	8*9.7	800.0	0.12	13	5200
	1200	8*9.7	960.0	0.12	13	5200
	1500	10*12.6	1200.0	0.12	13	5400
6.3 (0J)	47	5*6	300.0	0.12	30	1500
	100	5*6	300.0	0.12	25	1700
	120	6.3*6	300.0	0.12	25	2570
	150	6.3*6	300.0	0.12	22	2500
	180	6.3*6	300.0	0.12	22	2800
	220	6.3*6	300.0	0.12	22	2800
	330	6.3*7	300.0	0.12	20	2600
	390	8*9.7	500.0	0.12	30	3220
	470	8*7.5	592.0	0.12	18	3220
	560	6.3*9.7	706.0	0.12	20	3000
	560	8*9.7	706.0	0.12	15	5000
	680	8*9.7	857.0	0.12	15	5000
	820	8*9.7	1033.0	0.12	12	3350
	1000	8*9.7	1260.0	0.12	12	4700
	1200	8*9.7	1512.0	0.12	12	4700
1500	10*12.6	1890.0	0.12	12	4300	

◆ 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

CS 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)	Leakage current (uA)	tanδ (120Hz)	ESR(mΩ) at 20°C, 100 KHz	Rated ripple current (mArms/105°C\100kHz)
10 (1A)	68	6.3*6	300.0	0.12	50	2200
	150	6.3*6	300.0	0.12	45	2400
	220	8*9.7	440.0	0.12	20	3500
	270	8*9.7	540.0	0.12	20	3600
	330	8*9.7	660.0	0.12	17	3500
	330	6.3*9.7	660.0	0.12	20	3200
	680	10*12.6	660.0	0.12	13	3500
16 (1C)	39	6.3*6	300.0	0.12	35	2040
	82	6.3*6	300.0	0.12	30	2400
	100	6.3*6	320.0	0.12	30	2500
	180	8*7.5	576.0	0.12	25	2500
	180	6.3*9.5	576.0	0.12	25	2500
	220	8*9.7	704.0	0.12	20	3700
	220	6.3*9.7	704.0	0.12	20	3200
	270	6.3*9.7	864.0	0.12	20	3200
	270	8*9.7	864.0	0.12	20	4200
	330	8*9.7	1056.0	0.12	20	3900
	470	8*9.7	1504.0	0.12	20	3800
	470	10*12.6	1504.0	0.12	20	4000
	560	8*12	1792.0	0.12	20	3900
	560	10*12.6	1792.0	0.12	20	4100
	680	10*10	2176.0	0.12	20	4200
	680	10*12.6	2176.0	0.12	20	4200
	820	10*12.6	2624.0	0.12	20	4200
1000	10*12.6	3200.0	0.12	20	4300	
20 (1D)	22	6.3*6	300.0	0.12	60	1450
	47	8*7	300.0	0.12	45	1890
	68	10*8	300.0	0.12	40	2400
	100	8*12	400.0	0.12	24	3320
	150	10*12	600.0	0.12	20	4220
25 (1E)	33	6.3*6	300.0	0.12	50	1000
	47	6.3*6	300.0	0.12	40	1200
	56	8*9.7	300.0	0.12	75	1300
	100	8*9.7	410.0	0.12	30	3300
	220	8*12	1100.0	0.12	28	3500
	220	10*12.6	1100.0	0.12	28	3800
	270	10*12.6	1350.0	0.12	50	3800
	330	10*12.6	1650.0	0.12	35	2800
	470	10*12.6	2350.0	0.12	30	2800

◆ 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