

CS Series

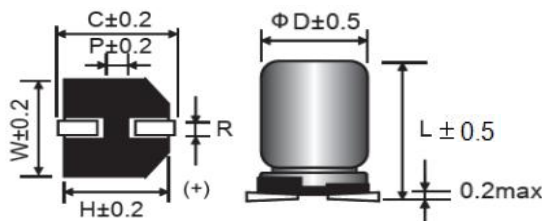
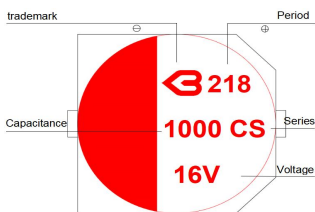
- Super low impedance, High ripple, miniaturized
- SMD type: lead free reflow soldering condition at 260°C peak correspondence
- RoHS Compliant



◆ Specifications

Items	Characteristics	
Category	-55 ~ +105°C	
Temperature Range	-55 ~ +105°C	
Rated Voltage Range	2.5 ~ 63V	
Capacitance tolerance	±20%(M) (at 20°C,120Hz)	
Leakage Current	After 2 minutes applied for rated voltage at 20°C, less than or equal to the specified value.	
tanδ Dissipation Factor	Less than or equal to the specified (at 20°C,120Hz)	
Temperature Characteristics (Max.Impedance Ratio)	Z(-25°C)/Z(+20°C)	≤1.25
	Z(-55°C)/Z(+20°C)	≤1.25
Endurance	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	
Damp Heat (Steady State)	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	
(Surge Voltage)	Surge Voltage=Rated voltage * 1.15(V) The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 15~35°C for 30 seconds through a protective resistor (R=1kΩ) and discharge for 5 minutes 30seconds	
	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	
Resistance to soldering heat	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	

◆ 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

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◆ Standard Ratings

Rated voltage (W.V)	Capacitance (uF)	Size ΦD*L (mm)	ESR(mΩ /100KHz) at 20°C	Rated ripple current (mA _{rms} /105°C)	Rated voltage (V)	Rated capacitance (uF)	Size ΦD*L (mm)	ESR(mΩ /100KHz) at 20°C	Rated ripple current (mA _{rms} /105°C)
2.5	330	6.3*5.8	20	2400	25	220	8*10.5	20	3400
	470	6.3*7.7	12	3200		330	6.3*10	18	3300
	560	6.3*7.7	12	3400		330	8*12.5	18	3800
	680	6.3*7.7	12	3600		470	6.3*13	16	3800
6.3	100	5*5.8	30	2000	35	470	8*12.5	16	4000
	220	6.3*5.8	20	2800		22	6.3*5.8	50	1800
	330	6.3*5.8	18	3000		47	6.3*5.8	45	2100
	470	6.3*7.7	18	3200		68	6.3*5.8	40	2200
	560	6.3*7.7	18	3400		100	6.3*7.7	35	2500
10	100	5*5.8	25	2000	50	220	8*10.5	30	3000
	220	6.3*5.8	20	2600		220	8*12.5	25	3100
	330	6.3*7.7	15	3200		330	8*12.5	20	3500
	470	6.3*8	12	3800		470	10*12.5	20	4200
	1000	8*12.5	12	4500		560	10*16.5	20	4500
16	47	5*5.8	40	1200	63	680	10*16.5	18	5000
	100	5*5.8	30	1800		10	5*5.8	80	1600
	100	6.3*5.8	30	2500		22	6.3*5.8	60	2000
	220	6.3*5.8	25	2500		33	6.3*7.7	50	2300
	220	6.3*7.7	20	2800		47	6.3*8	40	2400
	270	6.3*7.7	18	3200		100	8*9.7	30	3000
	330	6.3*7.7	16	3500		100	8*12.5	30	3100
	470	8*10.5	16	4000		100	10*10.5	30	3400
	560	8*10.5	16	4200		220	10*12.5	25	4000
	680	8*10.5	12	4600		10	6.3*5.8	50	1600
	820	8*12.5	12	5000		10	6.3*7.7	45	2000
	1000	8*12.5	12	5000		22	6.3*7.7	35	2000
	1000	10*12.5	12	5400		33	6.3*7.7	30	2000
25	47	5*5.8	35	1700	63	33	8*9.7	30	2000
	68	5*5.8	35	1700		47	8*10.5	30	2300
	100	5*5.8	35	1900		47	8*12.5	28	2500
	100	6.3*5.8	30	2300		56	8*12.5	28	2500
	100	6.3*7.7	30	2800		68	8*12.5	25	2600
	150	6.3*5.8	30	2500		100	8*12.5	25	2800
	150	6.3*7.7	25	3000		100	10*10.5	25	2800
	220	6.3*7.7	20	3100		150	10*12.5	25	3200

◆ Rated Ripple Current Coefficient

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