CQ Series

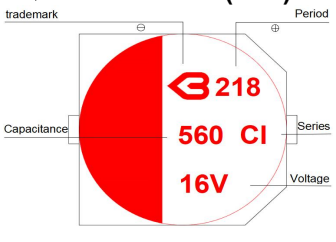
- Super low impedance, high ripple current, high voltage
- Load life of 10000 hours at 105℃
- SMD type: lead free reflow soldering condition at 260℃ peak correspondence
- RoHS Compliant

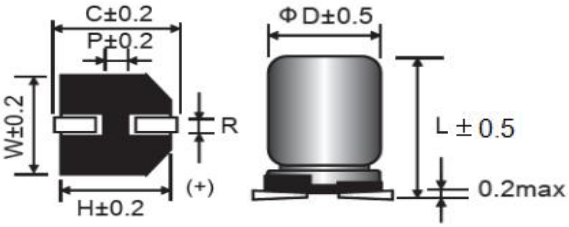
CI → (long life) CQ

◆ Specifications

Items	Characteristics		
Category Temperture Range	-55 ~ +105℃		
Rated Voltage Range	6.3 ~ 63V		
Capacitance tolerance	±20%(M) (at 20℃,120Hz)		
Leakage Current	After 2 minutes applied for rated voltage at 20℃, less than or equal to the specified value.		
tanδ Dissipation Factor	Less than or equal to the specified (at 20℃,120Hz)		
Low Temperture Characteristics (Max.Impedance Ratio)	Z(-25℃)/Z(+20℃)	≤1.25	(100KHz)
	Z(-55℃)/Z(+20℃)	≤1.25	
Endurence	The specifications listed below shall be satisfied 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)	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℃, 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℃ for 30 seconds through aprotective 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	6.3	6.3	8	8	10
L	6	9	10	12	12.5
W	6.6	6.6	8.3	8.3	10.3
H	6.6	6.6	8.3	8.3	10.3
C	7.3	7.3	9.0	9.0	11.0
R	0.5~0.8	0.5~0.8	0.8~1.1	0.8~1.1	0.8~1.1
P	2.1	2.1	3.2	3.2	4.6

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◆ Standard Ratings

Rated voltage (W.V)	Capacitance (uF)	Size ΦD*L (mm)	ESR(mΩ /100KHz) at 20℃	Rated ripple current (mArms/105℃ /100kHz)	Rated voltage (V)	Size ΦD*L (mm)	Size ΦD*L (mm)	ESR(mΩ /100KHz) at 20℃	Rated ripple current (mArms/105℃ /100kHz)
2.5	220	6.3*5.8	30	3000	25	47	6.3*5.8	40	2000
	330	6.3*5.8	30	3000		100	6.3*5.8	40	2500
	390	6.3*5.8	30	3000		100	6.3*7.7	30	3200
6.3	100	5*5.8	30	2500		220	6.3*7.7	20	3500
	220	5*5.8	25	2800		220	8*9.7	20	3800
	330	6.3*7.7	16	3500		330	8*10.5	20	4000
	560	6.3*7.7	16	4000		470	8*12.5	15	4300
10	47	5*5.8	60	2000		560	10*12.5	12	4800
	47	6.3*5.8	40	1800		680	10*12.5	12	4800
	100	5*5.8	40	2000	35	22	6.3*5.8	40	1800
	100	6.3*5.8	40	2300		22	6.3*7.7	40	2500
	120	5*5.8	35	2000		47	6.3*5.8	40	2000
	120	6.3*5.8	30	2300		68	6.3*7.7	30	2500
	220	6.3*5.8	25	2700		100	6.3*7.7	25	2800
	270	6.3*5.8	20	2800		220	8*12.5	20	3600
	330	6.3*7.7	16	3200		330	10*12.5	20	4000
	470	6.3*7.7	15	4000		470	10*12.5	18	4200
	680	8*10.5	12	4800		680	10*16.5	15	5000
	820	8*10.5	10	5200	50	10	6.3*5.8	50	1600
	1000	8*12.5	10	5500		22	6.3*5.8	50	1600
16	10	5*5.8	80	1000		33	6.3*7.7	45	2000
	22	5*5.8	80	1100		47	6.3*8	40	2000
	47	5*5.8	50	1200		68	8*10.5	35	2600
	100	5*5.8	30	1800		100	8*10.5	30	3200
	100	6.3*5.8	30	2300		100	8*12.5	25	3400
	100	6.3*7.7	25	2600		150	10*10.5	20	3800
	180	6.3*5.8	25	2800		220	10*12.5	20	4000
	220	6.3*5.8	25	3000		330	10*16.5	16	4500
	220	6.3*7.7	20	3500	63	10	6.3*5.8	50	1500
	270	6.3*7.7	15	4000		10	6.3*7.7	50	1600
	330	8*7.7	12	4200		22	6.3*7.7	40	1600
	470	8*9.7	12	4700		33	8*10.5	30	2300
	560	8*10.5	12	4800		47	8*10.5	25	2800
	560	8*12.5	12	5000		56	8*10.5	25	2800
	680	8*12.5	12	5000		68	8*12.5	25	2800
	1000	8*12.5	10	5000		100	10*12.5	25	3300
	1000	10*12.5	10	5400		220	10*16.5	20	4000

◆ 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