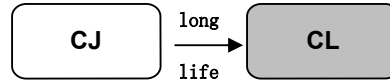


CL Series

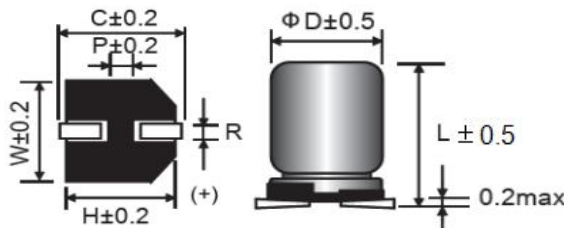
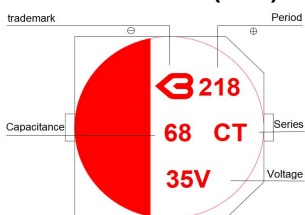
- Super low impedance, high ripple, high temperature resistant
- Load life of 5000 hours at 125°C
- SMD type: lead free reflow soldering condition at 260°C peak correspondence
- RoHS Compliant



◆ Specifications

Items	Characteristics	
Category		
Temperature Range	-55 ~ +125°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)	
Low 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 5000 hours at 125°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
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
(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
	ESR	≅ 150% of 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	6	7	12.0	8.0	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

CL Series

◆ **Standard Ratings**

Rated voltage (V)	Rated capacitance (uF)	Case size ΦD*L(mm)	Leakage current (uA)	tanδ (120Hz)	ESR(mΩ) at 20°C,100 KHz	Rated ripple current (mArms/105°C /100kHz)	Rated ripple current (mArms/125°C \100kHz)
6.3	100	5*5.8	500	0.12	40	2500	1000
	100	6.3*5.8	500	0.12	40	3000	1200
	220	5*8	500	0.12	30	3000	1200
	220	6.3*5.8	500	0.12	30	3000	1200
	330	6.3*5.8	500	0.12	30	3000	1200
10	100	5*5.8	500	0.12	40	2500	1000
	220	6.3*5.8	500	0.12	30	3000	1200
	330	6.3*7.7	660	0.12	25	3500	1400
16	47	5*5.8	500	0.12	40	2000	900
	100	5*5.8	500	0.12	35	2000	900
	100	6.3*5.8	500	0.12	35	2500	1000
	220	6.3*7.7	704	0.12	35	3000	1200
	270	6.3*7.7	864	0.12	25	3800	1600
	330	8*9.7	1056	0.12	20	4200	1700
	470	8*12.5	1504	0.12	20	4500	1800
25	680	10*10.5	2176	0.12	12	5000	2000
	47	6.3*5.8	500	0.12	50	2000	900
	100	6.3*7.7	500	0.12	40	3000	1200
	220	8*9.7	1100	0.12	20	3600	1500
	330	8*10.5	1650	0.12	16	4200	1700
	470	10*10.5	2350	0.12	15	4600	1800
	35	100	6.3*7.7	700	0.12	30	3000
220		8*10.5	1540	0.12	25	3500	1400
330		10*10.5	2310	0.12	20	4000	1600
50	10	5*5.8	500	0.12	100	2000	800
	22	6.3*5.8	500	0.12	50	2500	1000
	33	6.3*7.7	500	0.12	40	2800	1100
	47	8*9.7	500	0.12	30	3000	1200
	100	8*12.5	560	0.12	25	3500	1500
	220	10*12.5	1000	0.12	20	4000	1800
	330	10*16.5	1800	0.12	28	5000	2000
63	22	6.3*7.7	500	0.12	40	2000	800
	33	8*10.5	500	0.12	25	2500	1000
	47	8*10.5	0	0.12	25	2500	1000
	100	10*12.5	1260	0.12	25	3200	1200

◆ **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