

CPE Series

Features

- $\phi 6.3 \sim \phi 10$, 105°C, 20000 hours assured
- Ultra low ESR and high ripple current
- Solid Electrolytic Capacitors of Radial type
- RoHS compliant, REACH & SVHC compliant



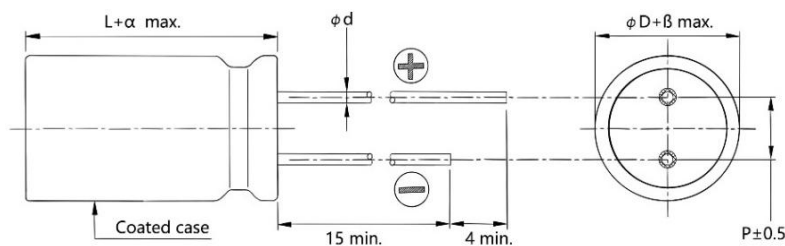
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Specifications					
Category temp. range	-55°C to +105°C				
Capacitance tolerance	±20% (120 Hz / +20 °C)				
Leakage current	Rated voltage applied, after 2 minutes at 20°C. Please see the attached characteristics list				
Tan δ	Please see the attached characteristics list				
ESR	Please see the attached characteristics list				
Characteristics at low temperature	Z (-25 °C) / Z (+20 °C)≤1.15			Max. Impedance ratio at 100 kHz	
	Z (-55 °C) / Z (+20 °C)≤1.25				
Endurance	Test Time	20000H			
	Capacitance change	Within ±20% of the initial value			
	Dissipation factor (tan δ)	Less than 150% of the initial value			
	ESR	Less than 150% of the initial value			
	Leakage current	Within the initial limit			
	The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2,000hours at 105°C.				
Moisture Resistance	Test Time	1000H			
	Capacitance change	Within ±20% of the initial value			
	Dissipation factor (tan δ)	Less than 150% of the initial value			
	ESR	Less than 150% of the initial value			
	Leakage current	Within the initial limit			
	The above specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them at 60°C, 90 ~ 95%RH for 1,000 hours. Leakage current should be tested after voltage treatment*.				
Resistance to soldering heat	After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits.				
	Capacitance change	Within ±10% of the initial value			
	Dissipation factor (tan δ)	Within the initial limit			
	ESR	Within the initial limit			
	Leakage current	Within the initial limit			
Ripple Current and Frequency Multipliers	Frequency	120≤ f <1k	1k≤ f <10k	10k≤ f <100k	100k≤ f <500k
	Multiplier	0.05	0.3	0.7	1.0

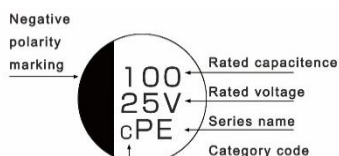
* For any doubt about measured values, measure the leakage current again after the following voltage treatment.

Voltage treatment: DC rated voltage is applied to the capacitors for 2 hours at 105 °C.

Dimensions:



Marking:



Dimensions					Unit: mm
ϕD	L	P	ϕd	α	β
6.3	6	2.5	0.5	1.5	0.5
6.3	8	2.5	0.5	1.5	0.5
6.3	11	2.5	0.6	1.5	0.5
8	8	3.5	0.6	1.5	0.5
8	12	3.5	0.6	1.5	0.5
8	16	3.5	0.6	1.5	0.5
8	20	3.5	0.6	1.5	0.5
10	12	5.0	0.6	1.5	0.5
10	16	5.0	0.6	1.5	0.5
10	20	5.0	0.6	1.5	0.5

Characteristics list

Rated voltage (V)	Capacitance (±20%) (μF)	Case size		Specification				Part Number④
		øD (mm)	L (mm)	Rated ripple current① (mA rms)	ESR② (mΩ)	tan δ③	L.C. (μA)	
2.5	680	6.3	8	3800	10	0.12	340	CPE0E681M0608□□
	1000	8	8	5200	10	0.10	500	CPE0E102M0808□□
	1200	8	12	5400	9	0.12	600	CPE0E122M0812□□
	1500	10	12	5500	10	0.12	750	CPE0E152M1012□□
	2700	10	12	5600	9	0.12	1350	CPE0E272M1012□□
4	470	6.3	8	3800	15	0.12	376	CPE0G471M0608□□
	820	8	8	4000	13	0.12	656	CPE0G821M0808□□
	1000	8	12	4300	11	0.12	800	CPE0G102M0812□□
	1500	10	12	5000	10	0.12	1200	CPE0G152M1012□□
	2200	10	12	5300	10	0.12	1760	CPE0G222M1012□□
6.3	470	6.3	8	4000	13	0.12	592	CPE0J471M0608□□
	560	8	8	4600	11	0.12	706	CPE0J561M0808□□
	680	8	12	4500	12	0.12	857	CPE0J681M0812□□
	820	8	12	4800	11	0.12	1033	CPE0J821M0812□□
	1000	10	12	5000	12	0.12	1260	CPE0J102M1012□□
	1500	10	12	5400	10	0.12	1890	CPE0J152M1012□□
10	330	6.3	8	3400	15	0.12	660	CPE1A331M0608□□
	390	8	8	3700	15	0.12	780	CPE1A391M0808□□
	470	8	12	3800	13	0.12	940	CPE1A471M0812□□
	680	8	12	4200	14	0.12	1360	CPE1A681M0812□□
	820	10	12	4300	15	0.12	1640	CPE1A821M1012□□
	1000	10	12	4800	13	0.12	2000	CPE1A102M1012□□
16	220	6.3	6	3200	20	0.12	704	CPE1C221M0606□□
	270	6.3	8	3800	15	0.12	864	CPE1C271M0608□□
	330	6.3	8	3800	15	0.12	1056	CPE1C331M0608□□
		6.3	11	5080	10	0.12	1056	CPE1C331M0611□□
	470	8	8	4000	16	0.12	1504	CPE1C471M0808□□
		8	12	5400	8	0.12	1504	CPE1C471M0812□□
	560	8	8	5400	16	0.12	1792	CPE1C561M0808□□
		8	12	6100	8	0.12	1792	CPE1C561M0812□□
	680	8	12	5400	12	0.12	2176	CPE1C681M0812□□
	820	8	16	7000	8	0.12	2624	CPE1C821M0816□□
		10	12	5400	12	0.12	2624	CPE1C821M1012□□
	1000	8	16	7000	10	0.12	3200	CPE1C102M0816□□
		8	20	7500	8	0.12	3200	CPE1C102M0820□□
		10	12	5200	12	0.12	3200	CPE1C102M1012□□
	1200	8	20	7500	8	0.12	3840	CPE1C122M0820□□
		10	12	5400	12	0.12	3840	CPE1C122M1012□□
	1500	8	20	7500	8	0.12	4800	CPE1C152M0820□□
		10	16	7700	8	0.12	4800	CPE1C152M1016□□
	1800	10	16	7700	8	0.12	5760	CPE1C182M1016□□
		10	20	8100	8	0.12	5760	CPE1C182M1020□□
	2200	10	20	8100	8	0.12	7040	CPE1C222M1020□□
	2700	10	20	8100	8	0.12	8640	CPE1C272M1020□□

① Rated ripple current (100kHz / +105°C) ② ESR (100kHz / +20°C) ③ tan δ (120Hz / +20°C)

※Please refer to the page of reflow conditions for reflow profile.

Characteristics list

Rated voltage (V)	Capacitance (±20%) (μF)	Case size		Specification				Part Number④
		øD (mm)	L (mm)	Rated ripple current① (mA rms)	ESR② (mΩ)	tan δ③	L.C. (μA)	
25	68	6.3	6	2200	35	0.12	340	CPE1E680M0606□□
	100	6.3	8	2780	28	0.12	500	CPE1E101M0608□□
	150	6.3	8	2780	28	0.12	750	CPE1E151M0608□□
	180	6.3	11	2900	26	0.12	900	CPE1E181M0611□□
		8	8	3770	18	0.12	900	CPE1E181M0808□□
		8	12	4650	16	0.12	900	CPE1E181M0812□□
	220	8	8	3770	18	0.12	1100	CPE1E221M0808□□
		8	12	4650	16	0.12	1100	CPE1E221M0812□□
	270	8	8	3770	18	0.12	1350	CPE1E271M0808□□
		8	12	4650	16	0.12	1350	CPE1E271M0812□□
	330	8	12	4650	16	0.12	1650	CPE1E331M0812□□
		10	12	5000	14	0.12	1650	CPE1E331M1012□□
	390	8	12	4650	16	0.12	1950	CPE1E391M0812□□
		10	12	5000	14	0.12	1950	CPE1E391M1012□□
	470	10	12	5000	14	0.12	2350	CPE1E471M1012□□
35	560	8	16	5400	14	0.12	2800	CPE1E561M0816□□
		10	12	5000	14	0.12	2800	CPE1E561M1012□□
	680	10	12	5000	14	0.12	3400	CPE1E681M1012□□
	47	6.3	6	800	85	0.12	329	CPE1V470M0606□□
	68	6.3	8	1100	60	0.12	476	CPE1V680M0608□□
	82	6.3	11	1800	45	0.12	574	CPE1V820M0611□□
50	100	8	8	2600	30	0.12	700	CPE1V101M0808□□
	120	8	12	3800	25	0.12	840	CPE1V121M0812□□
	220	10	12	4100	22	0.12	1540	CPE1V221M1012□□
	22	6.3	8	1000	70	0.12	220	CPE1H220M0608□□
	33	8	8	1800	55	0.12	330	CPE1H330M0808□□
	47	8	12	3900	24	0.12	470	CPE1H470M0812□□
	100	10	12	4300	20	0.12	1000	CPE1H101M1012□□

① Rated ripple current (100kHz / +105°C) ② ESR (100kHz / +20°C) ③ tan δ (120Hz / +20°C)

※Please refer to the page of reflow conditions for reflow profile.

Part Number System:

Polymer E-cap	CPE series	16V	270μF	±20 %	6.3 φ x8L		
C	PE	1C	271	M	0608	□□	
Category	Series name	Rated voltage	Capacitance	Tolerance	Case Size	Package	Supplement

④ Note: For more details, please refer to "Part Number System - Conductive Polymer Solid Capacitors"