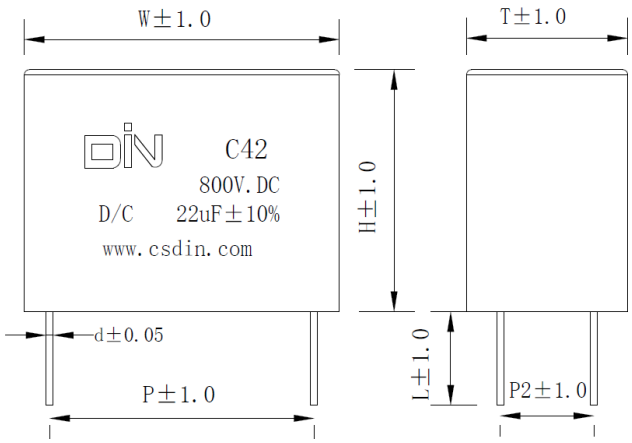
APPROVE SHEET

TO: TC ELKO

Main Materials		Mark & Outline
ITEMS	NAME	
Film	Metalized Polypropylene film	
Electrode	Tinned copper wire	
Epoxy	Flame-retardant Epoxy-white	
Case	Flame-retardant plastic case PBT	

Part No.	TYPE	Dimensions（mm）							NOTE
		W	H	T	P	P 2	L	ū D	
C4222643J5K284D000	C42/226K800V	42	37	28	37.5	10.2	5.5	1.0	

CUSTOMER CONFIRM			OFFER		
APPOVED BY	CHECKED BY	STAMP	APPOVED BY	STAMP	MADE BY
			深圳市创仕鼎电子有限公司 工程部	*Zhang*	*Zhou*
DATE			DATE	2026-03-18	

SHENZHEN CHUANGSHIDING ELECTRONICS CO.,LTD.

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Http:/ /www. csdcapacitor .com E-Mall:sales@csdcapacitor.com

Technical data

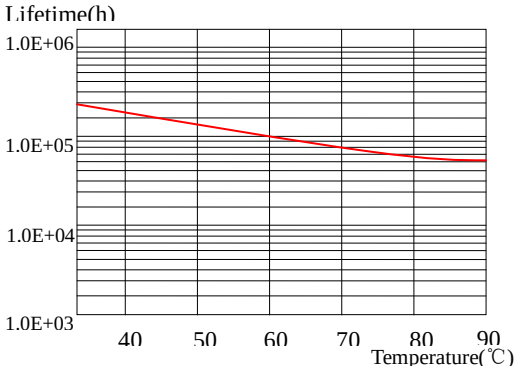
- Metallized polypropylene film
- Excellent electrical performance
- Plastic housing encapsulation (UL94 V-0), resin filled
- High-performance DC filtering applications

(Such as: frequency converters, photovoltaic inverters, industrial and high-end power supplies, DC/DC converters, etc.)

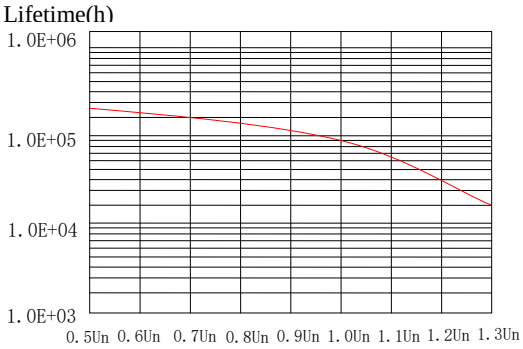
Rated capacitance	C_N	22ÕF±10%
Rated voltage	U_N	800V.DC
Non-recurrent surge voltage	U_S	---------
Maximum current	Irms	15A
Maximum peak current	Î	660A
Maximum surge current	I_S	/
Equivalent Series Resistanc	ESR	7.5mΩ@10kHz(Typical value)
Tangent of the loss	tan δ	≤0.0018(25℃， 1KHz)
Insulation Resistance	C×Ris	IR×C_N 5000s，100V 60S
Self inductance	L_e	/
Operation temperature range		-40℃~105℃ (+85℃ to +105℃: decreasing factor 1.35% per ℃ for UN,85℃)
Operating humidity	RH	0~95%
storage temperature		-10℃-+40℃
Service life		100000h
Failure quota		100Fit
Test data		
Voltage test between terminals	Vtt	1.5*Un 10S
A.C.voltage test terminal/container	Vt-c	2000+2Un(VAC)(10S) (Min3000VAC)
Operating altitude		2000m（max）

Electrical Characteristics of Film Capacitor

1. Lifetime Expectancy

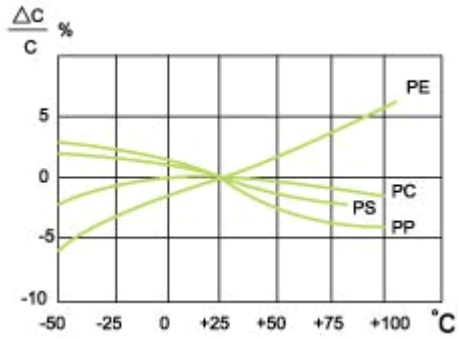


Life time Expectancy of charge temperature



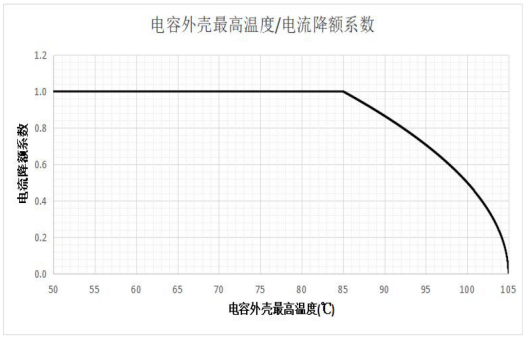
Life time Expectancy of charge voltage

2. Temperature Characteristics

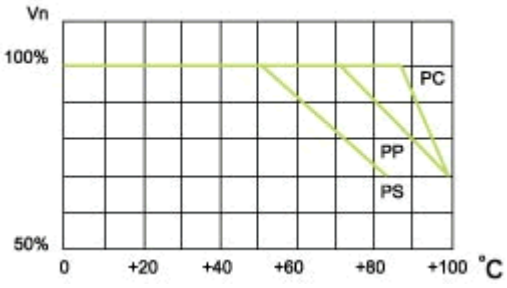


Capacitance vs. Temperature

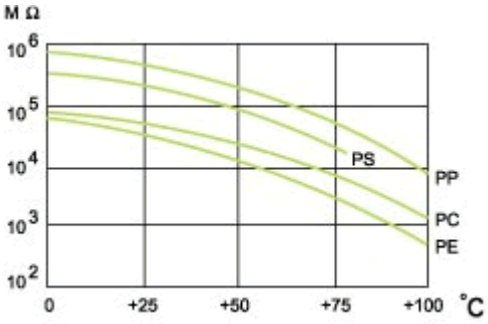
Irms



Operation current vs. Temperature

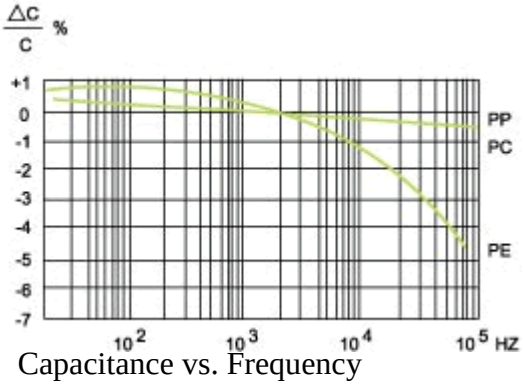


Operation voltage vs. Temperature

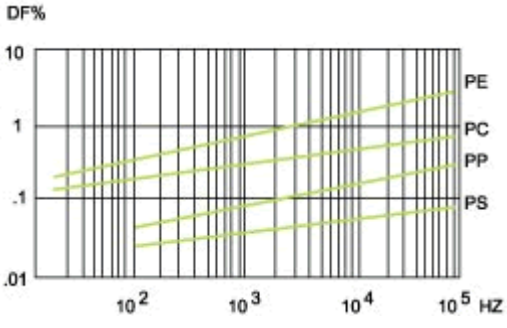


(CR value) IR vs. Temperature

3. Frequency Characteristics



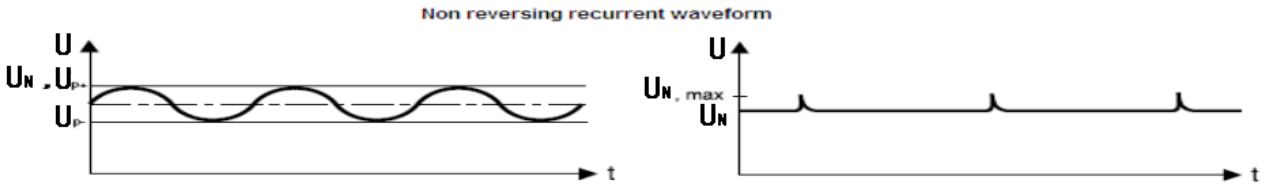
Capacitance vs. Frequency



Dissipation Factor vs. Frequency

■ Typical waveform diagram

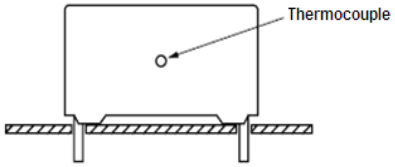
This capacitor is only suitable for DC applications, and the voltage applied to the capacitor must be a unidirectional ripple voltage.



Remarks:

- The peak voltage (U_{P+}) value cannot exceed the rated DC voltage (U_N) value;
- The peak to peak value of ripple voltage (U_{P-P}) cannot exceed 0.1 × (U_N)
- The maximum surface temperature rise cannot exceed 10 ℃.

■ Schematic diagram of temperature rise test



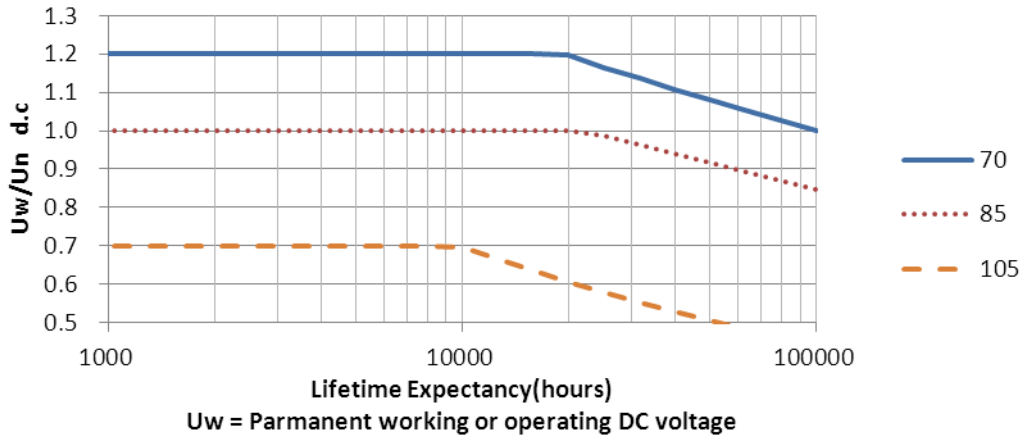
Remarks:

- Tamb is the temperature when no load is applied, and Tc is the highest surface temperature after load is applied;
- Temperature rise△T = T_c − T_{amb}
- To avoid thermal radiation or convection, capacitors must be tested in a closed space;

■ Regulations on overvoltage time

1.1 U_N	30% of on-load-dur.
1 .15U_N	30min/day
1.2 U_N	5min/day
1.3 U_N	1min/day
1.5U_N	100ms every time, 1000 times during the whole life of the capacitor

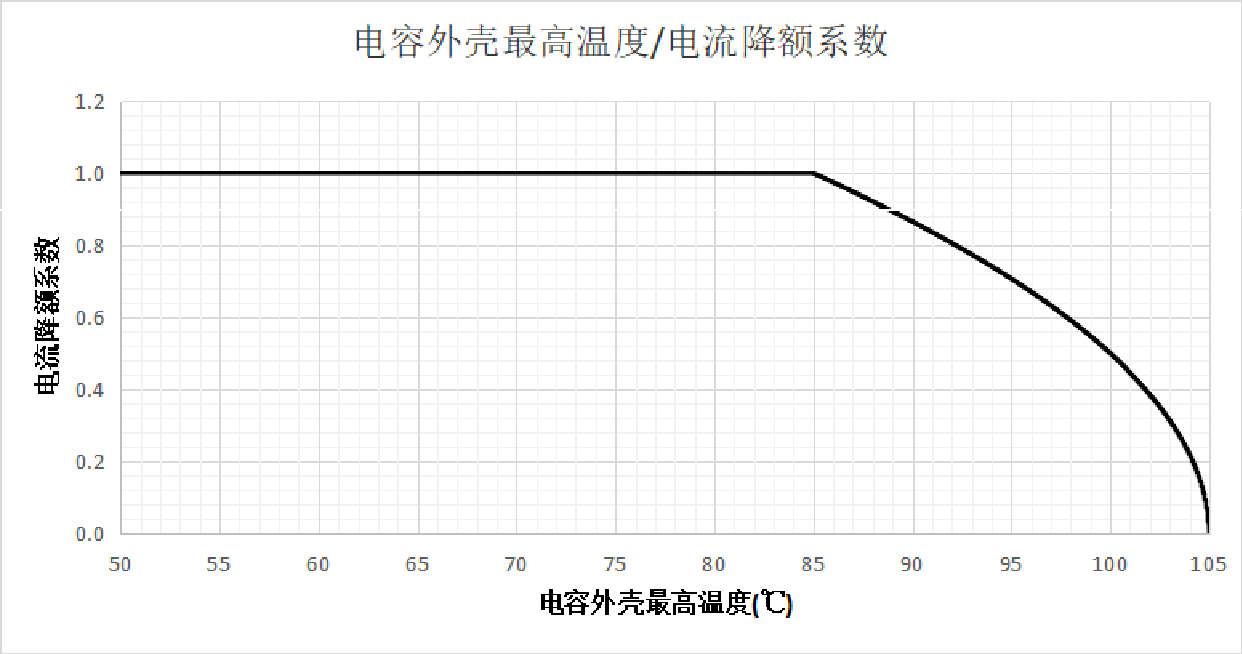
■Expected lifespan (typical curve)



■Explanation of capacitance derating of thin-film capacitors (plug-ins) with altitude and temperature

● ● Altitude derating: For altitudes exceeding 4000m, the current derating is 3% for every 500m increase in altitude;

● ● Current derating curve with temperature:



Instructions:

▲ When the maximum temperature of the capacitor housing is below 85℃, the current coefficient is 1;

▲ When the temperature of the capacitor housing rises, the current should be derated according to the above current derating coefficient;

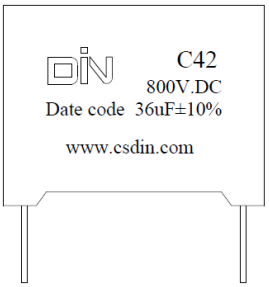
■ Testing methods and performance

NO.	Project	Performance Requirement	Test method IEC 61071
1	Visual inspection	The logo is clear, correct, and complete, and the external dimensions meet the requirements	See Vernier caliper
	Initial measurement	Capacitance: 1kHz Loss tangent tg δ : 1kHz	
	Terminal tensile strength	No visible damage to the appearance	Tensile Test Ua1 d ≤0.8mm 10N 0.8 mm<d ≤1.2mm 20N Bending test Ub1 d≤0.8 mm 5N 0.8 mm<d≤1.2 mm 10N 4×90° bend Bending time lasts for 2-3 seconds
	Resistance to Soldering Heat	No visible damage to the appearance	Slot welding method Tb, method 1A Welding slot temperature: 260 ℃± 5 ℃ Immersion time: 10s ± 1s
	Final measurement	Capacitance: |ΔC/C|≤0.5% Increase in tgδ≤0.005	
2	Initial measurement	Capacitance: 1kHz Loss tangent tg δ : 10kHz	
	Vibrate	No visible damage to the appearance	Frequency range: from 10Hz to 55Hz Amplitude: 0.35mm Sweep frequency cycle times: 10 Experimental procedure: Take three mutually perpendicular directions, with a duration of 10 frequency cycles per direction, one octave per minute. The total duration of the three directions is 135 minutes
	Collision	No visible damage to the appearance	1000 times, acceleration of 390m/s^2, Pulse duration: 6ms
	Final measurement	Capacitance: |ΔC/C|≤0.5% Increase in tgδ≤0.005	
3	Initial measurement	Capacitance: 1kHz Loss tangent tg δ : 10kHz	
	Surge discharge experiment		1.1 U_{NDC} Discharge frequency: 5 times Time lapse: Perform a surge discharge experiment every 2 minutes (for a total of 10 minutes). After 5 minutes, add 1.5 U_{NDC} for 60 seconds at room temperature
	Final measurement	Capacitance: |ΔC/C|≤0.5% Loss tangent: tgδ≤1.2×tgδ$_0$+ 0.0001	

NO.	Project	Performance Requirement	Test method IEC 61071
4	Initial measurement	Capacitance: 1kHz Loss tangent tg δ : 10kHz	
	Self-healing		Applied voltage: 1.5U_N Duration: 10s If the number of self-healing breakdowns within the above time is less than 5 times, then increase the voltage at a rate of 200V/min until 5 self-healing events occur or the voltage reaches 2.5U_N; If the self-healing breakdown frequency is still less than 5 times after the voltage reaches 2.5U_N, then maintain 2 Voltage of 5U_N for 10 seconds.
	Final measurement	Capacitance: $\|\Delta C/C\| \leqslant 0.5\%$ Loss tangent: $tg\delta \leq 1.1 \times tg\delta_0 + 0.0001$	
5	Initial measurement	Capacitance: 1kHz Loss tangent tg δ : 10kHz	
	Rapid temperature changes	No visible damage to the appearance	θ_A=-40℃, θ_B=+85℃ 5 cycles, duration: t=30min
	Final measurement	Capacitance: $\|\Delta C/C\| \leqslant 2.0\%$ Loss tangent: The increase in tg δ is ≤ 0.015	
6	Initial measurement	Capacitance: 1kHz Loss tangent tg δ : 10kHz	
	Damp heat steady state	No visible damage to the appearance	Temperature: 40 ℃± 2 ℃ Humidity: 93 ± 3% RH Duration: 56 days
	Final measurement	Inter electrode withstand voltage: There should be no permanent breakdown or flashover;	1.5UN, 60s
		Voltage resistance between polar shells: There should be no permanent breakdown or flashover;	2U_N (communication)+1 000Va.c. or 2 000Va.c. whichever is larger, 60 seconds
		Capacity: $\|\Delta C/C\| \leqslant 2.0\%$ Loss tangent: increase in tg δ ≤ 0.015	
7	Initial measurement	Capacitance: 1kHz Loss tangent tg δ : 10kHz	
	Thermal stability	The increase in temperature rise during the last 6 hours △T＜1℃	Environmental temperature: normal temperature Test current: 1.1Irms Test frequency: 10kHz Duration: 48 hours Test every 1.5 hours within the last 6 hours Temperature of the lower capacitor
	Final measurement	Capacitance: $\|\Delta C/C\| \leqslant 2.0\%$ Loss tangent: $tg\delta \leq 1.2 \times tg\delta_0 + 0.015$	

NO.	Project	Performance Requirement	Test method IEC 61071
8	Initial measurement	Capacitance: 1kHz Loss tangent tg δ : 10kHz	
	Durability		Test sequence: (1)1.3U_{NDC}, 85℃, 500h (2)1000 charge and discharge cycles: DV/dt value: see technical parameter table (3) 1.3U_{NDC}, 85℃, 500h
	Final measurement	Capacitance: |ΔC/C|≤3.0% Loss tangent: increase in tg δ ≤ 0.015	

■ MARK (Example)

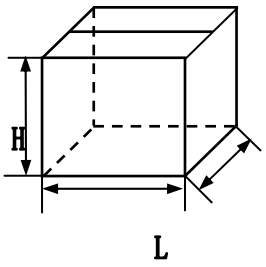


Symbol description:

Symbol	Describe	Symbol	Describe	Symbol	Describe
	LOGO	**C42**	Product model	**36μF±10%**	Nominal capacitance and deviation
800VDC	Rated voltage	**Date code**	Traceability code	**www.csdin.com**	Company website

■ Dimensions

1 Outer packaging box size

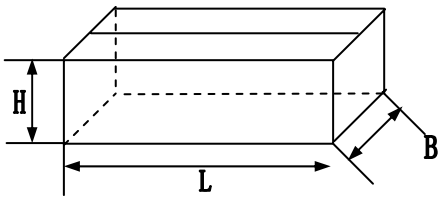


L:342mm

B:332mm

H:310mm

2 Size of inner packaging box



L:325mm

B:316mm

H:56mm