SPECIFICATION FOR APPROVAL

File No.: Q/FRK 0.GS.E.C22-F09

Product Name	Miniaturized metallized polyester film capacitor
Product Type	C22(CL21X Series)
Product Code	
Customer	
Customer Code	
Issue Date	2015-9

SURGE COMPONENTS, INC.
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DEER PARK, NY 11729
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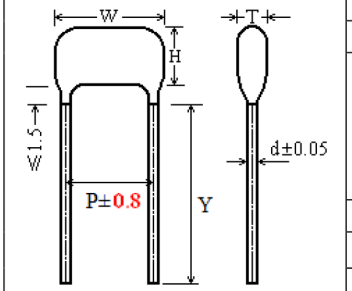
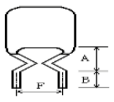
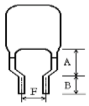
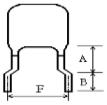
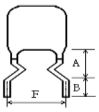
Metallized polyester film capacitor(Dipped)

■ Outline Drawing



Forming Lead Shapes			
I	II	III	IV
			
P ≥ F		P < F	
0mm≤P-F≤3mm	3mm<P-F≤8mm	3mm<F-P≤5mm	0mm<F-P≤3mm
F±0.8mm; A≤5.0mm; B=4.5±0.5mm			

■ Features

- Metallized polyester film, non-inductive wound construction
- Small size and Excellent self-healing property
- Flame retardation epoxy resin coating (UL94/V-0)

■ Typical application

- As intermediate circuit capacitors for SMPS、Electronic Ballast、inverter (i.e. DC-link , DC-filter and P.F.C).

■ Specifications

Reference Standard	GB 7332 (IEC 60384-2)				
Climatic Category	55/105/21				
Rated temperature	85℃				
Operating temperature range	-55℃~105℃ (+85℃ to +105℃： decreasing factor 1.25% per ℃ for U_R)				
Rated Voltage	250V, 400V/450V, 520V, 630V				
Capacitance Range	0.010μF ~ 10.0μF				
Capacitance Tolerance	±5%(J), ±10%(K), ±20%(M)				
Voltage Proof	1.6U_R (5s)				
Dissipation Factor	≤ 0.8% (20℃,1kHz)				
Insulation Resistance	≥30 000MΩ , C_N≤0.33μF ≥10 000s, C_N>0.33μF	(20℃,100V,1min)			
Maximum Pulse Rise Time(dV/dt) If the working voltage(U) is lower than the rated voltage(U_R),the capacitor can be worked at a higher dV/dt. In this case, the maximum allowed dV/dt is obtain by multiplying the right value with U_R/U.	U_R(V)	dV/dt (V/μs)			
		P=7.5	P=10.0	P=15.0	P=22.5
	250	80	60	50	30
	400/450	150	120	100	50
	520	200	180	150	80
	630	350	300	200	100

■ Part number system

The 18 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
C	2	2															

Digit 1 to 3 Series code

C22=CL21X

Digit 4 to 5 DC rated voltage

2E=250V 2G=400V 2S=450V

2T=520V 2J=630V

Digit 6 to 8 Rated capacitance value

For example : 103=10×10^3 pF= 0.01μF

Digit 9 Capacitance tolerance

J=±5%,K=±10%, M=±20%

Digit 10 Lead pitch

3=7.5mm 4=10.0mm 6=15mm 9=22.5mm

Digit 11 Internal use

Digit 12 to 15 Lead form and packaging code

Digit 16 to 18 Internal use

Table 1 lead form and packaging code

<table>
<tr><th colspan="2">Digit 12</th><th colspan="2">Digit 13</th><th colspan="2">Digit 14</th><th colspan="4">Digit 15</th></tr>
<tr><td>code</td><td>explanation</td><td>code</td><td colspan="3">explanation</td><td>code</td><td>explanation</td><td>code</td><td>explanation</td></tr>
<tr><td rowspan="2">A</td><td rowspan="2">ammo-pack</td><td rowspan="2">2
3
4
6</td><td rowspan="2">F=5.0mm
F=7.5mm
F=10.0mm
F=15.0mm</td><td>1</td><td>Kinked</td><td>A</td><td colspan="3">each cap. between two consecutive holes
P3=12.7mm,H=20.0mm(For pitch=7.5mm)</td></tr>
<tr><td>0</td><td>Straight</td><td>E</td><td colspan="3">P3=25.4mm;H=20.0mm (For pitch=10.0/15.0mm)</td></tr>
<tr><td>F</td><td>lead kinked</td><td>2
3
4
6</td><td>F=5.0mm
F=7.5mm
F=10.0mm
F=15.0mm</td><td>0</td><td>B=4.5mm
(the length of B)</td><td>0</td><td colspan="3">B Length tolerance ±0.5mm</td></tr>
<tr><td rowspan="2">Y</td><td rowspan="2">straight lead
“Y” in the figure above</td><td>code</td><td colspan="3">explanation</td><td rowspan="2">0</td><td colspan="3" rowspan="2">Length tolerance ±0.5mm</td></tr>
<tr><td>45
35
23</td><td colspan="3">lead length 4.5mm
lead length 3.5mm
lead length 3.2mm</td></tr>
<tr><td colspan="10">Digit12-15 code “C000”means standard lead length (20mm ~ 30mm)</td></tr>
</table>

■ Dimensions (mm)

250Vdc						
C_N (μF)	W max	H max	T max	P	d	Part number
0.22	10.0	9.9	4.9	7.5	0.5	C222E224-30****+++
0.33	10.0	10.4	5.7	7.5	0.5	C222E334-30****+++
0.47	10.0	11.8	6.3	7.5	0.5	C222E474-30****+++
0.68	10.0	13.9	6.9	7.5	0.5	C222E684-30****+++
1.0	10.0	15.3	8.4	7.5	0.5	C222E105-30****+++
0.33	12.5	9.0	5.2	10.0	0.6	C222E334-40****+++
0.47	12.5	10.8	5.4	10.0	0.6	C222E474-40****+++
0.68	12.5	11.7	6.3	10.0	0.6	C222E684-40****+++
1.0	12.5	14.4	7.4	10.0	0.6	C222E105-40****+++
1.5	12.5	16.9	8.4	10.0	0.6	C222E155-40****+++
2.2	12.5	19.7	9.5	10.0	0.6	C222E225-40****+++
0.47	17.8	9.3	4.7	15.0	0.8	C222E474-60****+++
0.68	17.8	10.0	5.4	15.0	0.8	C222E684-60****+++
1.0	17.8	12.0	6.5	15.0	0.8	C222E105-60****+++
1.5	17.8	14.2	7.2	15.0	0.8	C222E155-60****+++
2.2	17.8	16.6	8.0	15.0	0.8	C222E225-60****+++
3.3	17.8	19.3	9.2	15.0	0.8	C222E335-60****+++
4.7	17.8	21.2	11.0	15.0	0.8	C222E475-60****+++
1.0	25.5	10.9	5.5	22.5	0.8	C222E105-90****+++
1.5	25.5	12.9	5.9	22.5	0.8	C222E155-90****+++
2.2	25.5	13.9	6.9	22.5	0.8	C222E225-90****+++
3.3	25.5	16.4	7.8	22.5	0.8	C222E335-90****+++
4.7	25.5	18.8	8.7	22.5	0.8	C222E475-90****+++
6.8	25.5	20.6	10.5	22.5	0.8	C222E685-90****+++
10.0	25.5	23.0	12.9	22.5	0.8	C222E106-90****+++

400Vdc/450Vdc#						
C_N (μF)	W max	H max	T max	P	d	Part number
0.047	10.0	7.1	4.0	7.5	0.5	C222G473-30****+++
0.068	10.0	8.0	4.4	7.5	0.5	C222G683-30****+++
0.10	10.0	9.7	5.1	7.5	0.5	C222G104-30****+++
0.15	10.0	10.6	6.0	7.5	0.5	C222G154-30****+++
0.10	12.5	9.1	4.4	10.0	0.6	C222G104-40****+++
0.15	12.5	9.7	5.1	10.0	0.6	C222G154-40****+++
0.22	12.5	11.1	5.7	10.0	0.6	C222G224-40****+++
0.33	12.5	13.2	6.2	10.0	0.6	C222G334-40****+++
0.47	12.5	15.4	6.8	10.0	0.6	C222G474-40****+++
0.68	12.5	16.8	8.2	10.0	0.6	C222G684-40****+++
1.0	12.5	19.6	9.4	10.0	0.6	C222G105-40****+++
0.22	17.8	10.3	4.9	15.0	0.8	C222G224-60****+++
0.33	17.8	11.1	5.7	15.0	0.8	C222G334-60****+++
0.47	17.8	13.1	6.1	15.0	0.8	C222G474-60****+++
0.68	17.8	15.3	6.8	15.0	0.8	C222G684-60****+++
1.0	17.8	17.2	8.7	15.0	0.8	C222G105-60****+++
1.5	17.8	20.1	10.0	15.0	0.8	C222G155-60****+++
2.2	17.8	22.3	12.2	15.0	0.8	C222G225-60****+++
0.47	25.5	11.3	5.9	22.5	0.8	C222G474-90****+++
0.68	25.5	13.3	6.3	22.5	0.8	C222G684-90****+++
1.0	25.5	14.4	7.4	22.5	0.8	C222G105-90****+++
1.5	25.5	16.9	8.3	22.5	0.8	C222G155-90****+++
2.2	25.5	19.6	9.5	22.5	0.8	C222G225-90****+++
3.3	25.5	21.8	11.7	22.5	0.8	C222G335-90****+++

Note: 1. "-"=capacitance tolerance code, M=±20%,K=±10%,J=±5%

2. "****"=lead form and packaging code (refer to table 1).

3. "#" when the rated voltage is 450Vdc,the digit 4~5 is 2S.

■ Dimensions (mm)

520Vdc						
C_N (μF)	W max	H max	T max	P	d	Part number
0.022	9.8	7.5	4.0	7.5	0.5	C222T223-30****+++
0.033	9.8	8.5	4.4	7.5	0.5	C222T333-30****+++
0.047	9.8	9.6	4.7	7.5	0.5	C222T473-30****+++
0.068	9.8	10.4	5.4	7.5	0.5	C222T683-30****+++
0.068	12.5	9.6	4.7	10.0	0.6	C222T683-40****+++
0.10	12.5	10.9	5.5	10.0	0.6	C222T104-40****+++
0.15	12.5	11.9	6.5	10.0	0.6	C222T154-40****+++
0.22	12.5	14.1	7.1	10.0	0.6	C222T224-40****+++
0.33	12.5	15.6	8.6	10.0	0.6	C222T334-40****+++
0.10	17.8	9.4	4.7	15.0	0.8	C222T104-60****+++
0.15	17.8	10.2	5.5	15.0	0.8	C222T154-60****+++
0.22	17.8	11.6	6.1	15.0	0.8	C222T224-60****+++
0.33	17.8	13.7	6.7	15.0	0.8	C222T334-60****+++
0.47	17.8	14.9	7.9	15.0	0.8	C222T474-60****+++
0.68	17.8	17.5	8.9	15.0	0.8	C222T684-60****+++
1.0	17.8	20.9	10.7	15.0	0.8	C222T105-60****+++
1.5	17.8	23.4	13.2	15.0	0.8	C222T155-60****+++
0.33	25.5	12.4	5.4	22.5	0.8	C222T334-90****+++
0.47	25.5	13.3	6.3	22.5	0.8	C222T474-90****+++
0.68	25.5	15.5	7.0	22.5	0.8	C222T684-90****+++
1.0	25.5	18.5	8.4	22.5	0.8	C222T105-90****+++
1.5	25.5	20.4	10.3	22.5	0.8	C222T155-90****+++
2.2	25.5	22.6	12.5	22.5	0.8	C222T225-90****+++

630Vdc						
C_N (μF)	W max	H max	T max	P	d	Part number
0.010	9.8	7.6	4.1	7.5	0.5	C222J103-30****+++
0.015	9.8	7.6	4.1	7.5	0.5	C222J153-30****+++
0.022	9.8	8.1	4.6	7.5	0.5	C222J223-30****+++
0.033	9.8	9.2	5.1	7.5	0.5	C222J333-30****+++
0.047	9.8	10.5	5.5	7.5	0.5	C222J473-30****+++
0.068	9.8	11.9	6.2	7.5	0.5	C222J683-30****+++
0.10	9.8	13.1	7.7	7.5	0.5	C222J104-30****+++
0.047	12.5	9.6	4.6	10.0	0.6	C222J473-40****+++
0.068	12.5	10.3	5.3	10.0	0.6	C222J683-40****+++
0.10	12.5	11.2	6.5	10.0	0.6	C222J104-40****+++
0.15	12.5	13.9	6.9	10.0	0.6	C222J154-40****+++
0.22	12.5	15.3	8.3	10.0	0.6	C222J224-40****+++
0.10	17.8	10.6	5.1	15.0	0.8	C222J104-60****+++
0.15	17.8	12.5	5.5	15.0	0.8	C222J154-60****+++
0.22	17.8	13.5	6.5	15.0	0.8	C222J224-60****+++
0.33	17.8	14.8	7.8	15.0	0.8	C222J334-60****+++
0.47	17.8	16.3	9.2	15.0	0.8	C222J474-60****+++
0.68	17.8	19.1	10.4	15.0	0.8	C222J684-60****+++
1.0	17.8	22.8	12.6	15.0	0.8	C222J105-60****+++
1.5	17.8	25.8	15.6	15.0	0.8	C222J155-60****+++
0.22	25.5	11.2	5.7	22.5	0.8	C222J224-90****+++
0.33	25.5	12.2	6.7	22.5	0.8	C222J334-90****+++
0.47	25.5	14.3	7.3	22.5	0.8	C222J474-90****+++
0.68	25.5	15.7	8.7	22.5	0.8	C222J684-90****+++
1.0	25.5	20.0	9.8	22.5	0.8	C222J105-90****+++
1.5	25.5	22.2	12.1	22.5	0.8	C222J155-90****+++
2.2	25.5	24.9	14.8	22.5	0.8	C222J225-90****+++

Note: 1. "-"=capacitance tolerance code, M=±20%,K=±10%,J=±5%

2. "****"=lead form and packaging code (refer to table 1).

■ Dimensions(mm)

Miniature version

250Vdc							400Vdc/450Vdc#						
C_N (μF)	W max	H max	T max	P	d	Part number	C_N (μF)	W max	H max	T max	P	d	Part number
0.22	9.8	7.9	4.0	7.5	0.5	C222E224-3S****+++	0.047	9.8	6.9	3.7	7.5	0.5	C222G473-3S****+++
0.27	9.8	8.8	4.1	7.5	0.5	C222E274-3S****+++	0.068	9.8	7.8	4.0	7.5	0.5	C222G683-3S****+++
0.33	9.8	9.1	4.5	7.5	0.5	C222E334-3S****+++	0.082	9.8	8.7	4.0	7.5	0.5	C222G823-3S****+++
0.47	9.8	11.4	5.0	7.5	0.5	C222E474-3S****+++	0.10	9.8	9.0	4.4	7.5	0.5	C222G104-3S****+++
0.56	9.8	12.9	5.1	7.5	0.5	C222E564-3S****+++	0.12	9.8	9.3	4.7	7.5	0.5	C222G124-3S****+++
0.68	9.8	13.4	5.6	7.5	0.5	C222E684-3S****+++	0.15	9.8	10.8	5.1	7.5	0.5	C222G154-3S****+++
0.82	9.8	13.9	6.1	7.5	0.5	C222E824-3S****+++	0.18	9.8	11.2	5.5	7.5	0.5	C222G184-3S****+++
1.00	9.8	14.5	6.7	7.5	0.5	C222E105-3S****+++	0.22	9.8	11.8	6.0	7.5	0.5	C222G224-3S****+++
0.33	12.3	7.9	4.1	10.0	0.6	C222E334-4S****+++	0.27	9.8	12.4	6.6	7.5	0.5	C222G274-3S****+++
0.47	12.3	9.6	4.2	10.0	0.6	C222E474-4S****+++	0.10	12.3	8.4	3.8	10.0	0.6	C222G104-4S****+++
0.56	12.3	9.9	4.7	10.0	0.6	C222E564-4S****+++	0.12	12.3	8.7	4.0	10.0	0.6	C222G124-4S****+++
0.68	12.3	10.3	5.1	10.0	0.6	C222E684-4S****+++	0.15	12.3	9.0	4.4	10.0	0.6	C222G154-4S****+++
0.82	12.3	10.8	5.5	10.0	0.6	C222E824-4S****+++	0.18	12.3	9.4	4.7	10.0	0.6	C222G184-4S****+++
1.00	12.3	11.3	6.1	10.0	0.6	C222E105-4S****+++	0.22	12.3	10.3	4.9	10.0	0.6	C222G224-4S****+++
							0.27	12.3	10.8	5.4	10.0	0.6	C222G274-4S****+++
							0.33	12.3	12.3	5.4	10.0	0.6	C222G334-4S****+++
							0.47	12.3	13.9	6.6	10.0	0.6	C222S474-4S****+++
							0.68	12.3	16.8	7.4	10.0	0.6	C222G684-4S****+++
							0.82	12.3	17.5	8.2	10.0	0.6	C222G824-4S****+++
							1.00	12.3	18.4	9.1	10.0	0.6	C222G105-4S****+++

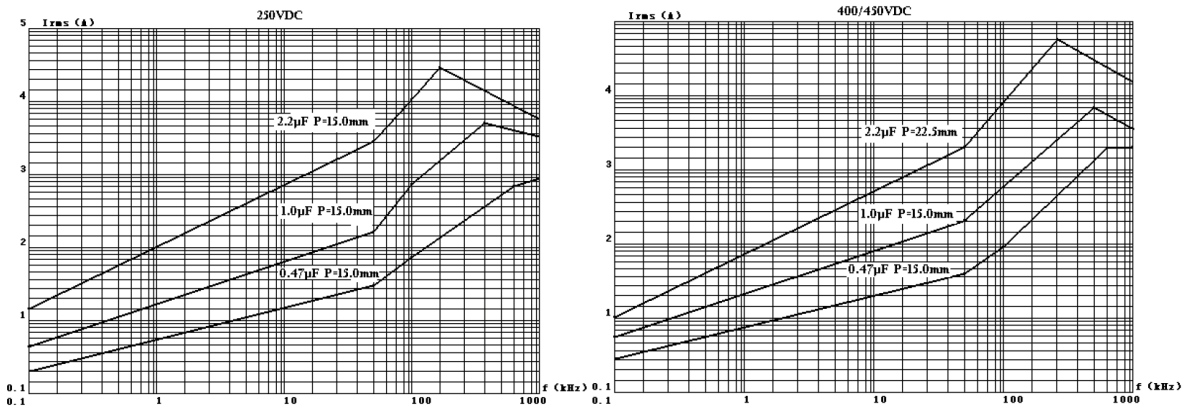
520Vdc						
C_N (μF)	W max	H max	T max	P	d	Part number
0.033	9.8	7.7	3.9	7.5	0.5	C222T333-3S****+++
0.047	9.8	8.8	4.1	7.5	0.5	C222T473-3S****+++
0.068	9.8	9.4	4.8	7.5	0.5	C222T683-3S****+++
0.10	9.8	10.8	5.8	7.5	0.5	C222T104-3S****+++
0.15	9.8	11.9	7.0	7.5	0.5	C222T154-3S****+++
0.068	12.3	8.7	4.0	10.0	0.6	C222T683-4S****+++
0.10	12.3	9.9	4.5	10.0	0.6	C222T104-4S****+++
0.15	12.3	10.7	5.3	10.0	0.6	C222T154-4S****+++
0.22	12.3	13.3	6.0	10.0	0.6	C222T224-4S****+++
0.33	12.3	14.6	7.3	10.0	0.6	C222T334-4S****+++

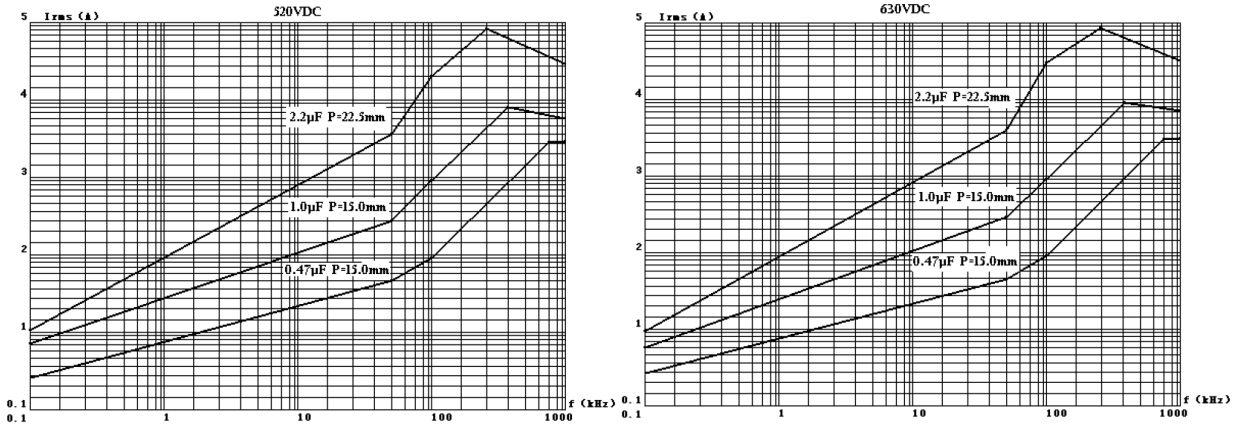
备注：1. "-"=capacitance tolerance code, M=±20%,K=±10%,J=±5%

2. "****"=lead form and packaging code（refer to table 1）

3. "#"when the rated voltage is 450Vdc,the digit 4~5 is 2S.

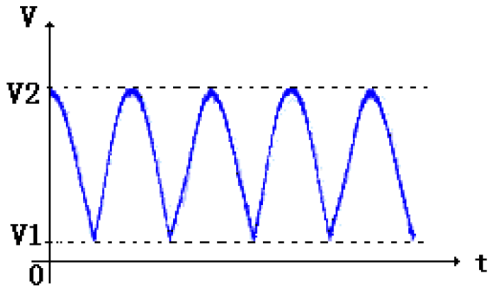
■ Max current (Ir.m.s) versus frequency





Note: 1.sinusoidal wave-form、environment temperature≤85℃,internal temperature rise △T=15℃, p (pitch) in mm.

2.The series product is only recommended to use in DC-filter or DC-blocking circuits. It means the voltage applied to the capacitors must be unidirectional ripple voltage. The typical voltage curve is as follows reference. If you have any questions for this note, please feel free to contact with our technical engineer.



Here: $V_1 \geq 0$, $V_2 \leq U_R$, $Irms = 2\pi f \times C \times (V_2 - V_1) \div \sqrt{2}$

U_R is the rated voltage of the capacitor

■ Test Method And Performance

No.	Item		Performance	Test method (IEC60384-2)
1	Solderability		Good quality of tinning	Solder temperature:245˚C±5˚C Immersion time: 2.0s±0.5s
2	Initial measurement		Capacitance Tgδ: 1kHz, C>1.0μF 10kHz, C≤1.0μF	
	Terminal strength		There shall be no visible damage	Ref. item 4.3 Tension: 0.6≤ϕd≤0.8mm, 10N ϕd=1.0mm, 20N Bend: 0.6≤ϕd≤0.8mm, 5N ϕd=1.0mm, 10N The terminals shall be bent 2 times in each direction.
	Resistance to solder heat		There shall be no visible damage	Solder temperature:260˚C±5˚C Immersion time: 10s±1s
	Final measurement		ΔC/C ≤±2%(relative to the initial value) Increase of tgδ: ≤0.005 (10kHz,C≤1.0μF) ≤0.003 (1kHz,C>1.0μF)	
3	Initial measurement		Capacitance Tgδ:1kHz, C>1.0μF 10kHz, C≤1.0μF	
	Rapid change of temperature		There shall be no evidence of deterioration.	θ_A=-55˚C, θ_B =+85˚C 5 cycles, Duration: t=30min
	Vibration		There shall be no evidence of deterioration.	Amplitude 0.75mm or acceleration 98m/s^2 (whichever is the smaller severity), f: 10Hz to 500Hz.Three directions, 2h for each direction, total 6h.
	Bump		There shall be no evidence of deterioration.	4 000 times, Acceleration: 390m/s^2,Pulse duration, 6ms
	Final measurement		ΔC/C ≤±5%(relative to the initial value) Increase of tgδ: ≤0.003 (10kHz, C≤1.0μF) ≤0.002 (1kHz, C>1.0μF) IR: ≥ 50% of the rated value	
4	climate sequence	Initial measurement	Capacitance Tgδ:1kHz, C>1.0μF 10kHz, C≤1.0μF	
		Dry heat		+85℃,16h
		Damp,heat, Cyclic		Test Db, Severity: b, the first cycle
		Cold		-55℃, 2h
		Low air pressure	There shall be no permanent break down, flashover or other harmful deformation when applying U_R at the last 1 minute.	15℃~35℃,8.5kPa, 1h,
		Damp,heat, cyclic other		Test Db, Severity b, the other cycles, Applying U_R for 1 minute after the test finished.

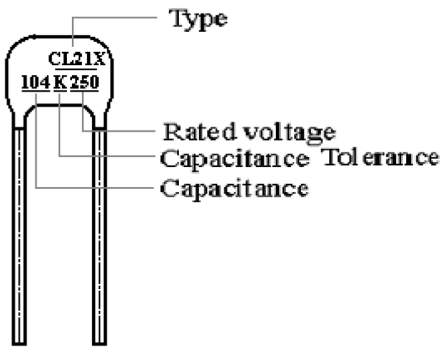
No.	Item		Performance	Test method (IEC60384-2)
4	climate sequence (continue)	Final measurement	There shall be no evidence of deterioration and the marking shall be legible. ΔC/C ≤±5%(relative to the initial value) Increase of tgδ: ≤0.005 (10kHz, C≤1.0μF) ≤0.003 (1kHz, C>1.0μF) IR: ≥ 50% of the rated value	
5	Damp heat steady state		There shall be no evidence of deterioration and the marking shall be legible. ΔC/C ≤ ±5%(relative to the initial value) Increase of tgδ ≤0.005 IR: ≥50% of the rated value	Temperature:40˚C ±2˚C Humidity: 93^{+2}_{-3} %RH Duration: 21days
6	Endurance		ΔC/C ≤±8%(relative to the initial value) Increase of tgδ: ≤0.003 (10kHz, C≤1.0μF) ≤0.002 (1kHz, C>1.0μF) IR: ≥ 50% of the rated value	Temperature: +85℃ Voltage: 1.25×U_R Duration: 1 000h
7	Charging and discharging		ΔC/C ≤±5%(relative to the initial value) Increase of tgδ: ≤0.003 (10kHz, C≤1.0μF) ≤0.002 (1kHz, C>1.0μF) IR: ≥ 50% of the rated value	Times: 10 000 Duration of charging: 0.5s Duration of discharging: 0.5s Charging voltage: rated voltage Charging resistance: 220/C_N(Ω) Discharging resistance: R=10/C_N(Ω) or 20Ω(whichever is the greater) C_N: rated capacitance (μF)

■ Quality ensuring test (before shipment):

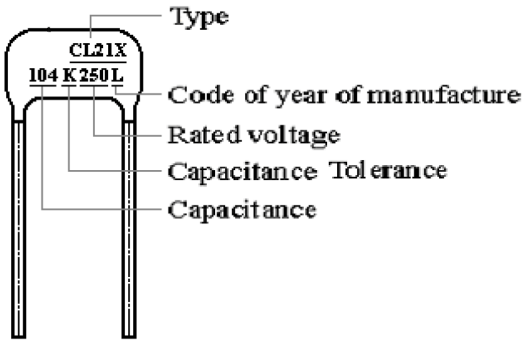
Inspection item（each batch）	Inspection level （GB 2828）	
	IL	AQL
Appearance inspection	S-4	1.5%
Dimensions		
Capacitance	II	0.65%
Tangent of the loss angle		
Dielectric strength		
Insulation resistance		
Solderability	S-3	2.5%

■ Marking

P≤10.0mm



P>10.0mm



■ Taping for dipped-type capacitor

▲ Outline Drawing

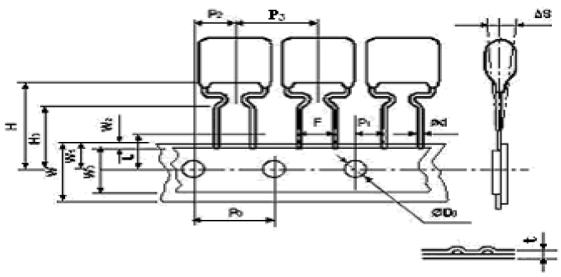


Fig.1

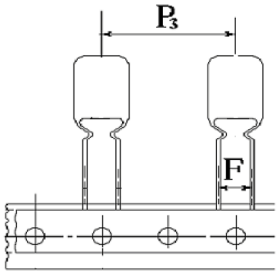


Fig 2

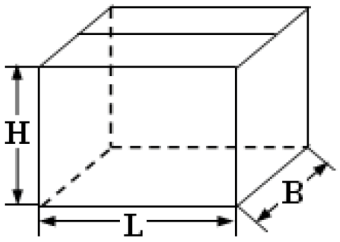
▲ Taping Dimensions(mm)

Technology index title	Code	Dimensions (mm)				
		P=5.0	P=7.5	P=10.0	P=15.0	Tolerance
Taping type	—	Fig 1	Fig 1	Fig 2	Fig 2	——
Part number Digit12-15	Ammo-pack	A21A	A31A	A41E	A61E	
Taping pitch	P_3	12.7	12.7	25.4	25.4	±1.0
Feed hole pitch	P_0	12.7	12.7	12.7	12.7	±0.3
Center of wire	P_1	3.85	2.60	7.7	5.2	±0.7
Center of body	P_2	6.35	6.35	12.7	12.7	±1.3
Pitch of taping wire	F**	5.0	7.5	10.0	15.0	+0.8 -0.2
Component alignment	△S	0	0	0	0	±2.0
Height of crankle from tape center	H	20.0	20.0	20.0	20.0	±1.0
Height of component from tape center	H_0	16.0	16.0	16.0	16.0	±0.5
Carrier tape width	W	18.0	18.0	18.0	18.0	+1.0 -0.5
Hold down tape width	W_0	10min	10min	10min	10min	——
Hole position	W_1	9.0	9.0	9.0	9.0	+0.75 -0.5
Hold down tape sition	W_2	3max	3max	3max	3max	——
Feed hole dia.	D_0	4.0	4.0	4.0	4.0	±0.3
Tape thickness	t	0.7	0.7	0.7	0.7	±0.2

Note: * P_0=15mm is also available;
** F can be other lead spacing;

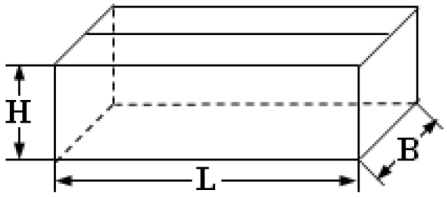
■ Packing box sizes(mm)

1. Out packing box for bulk



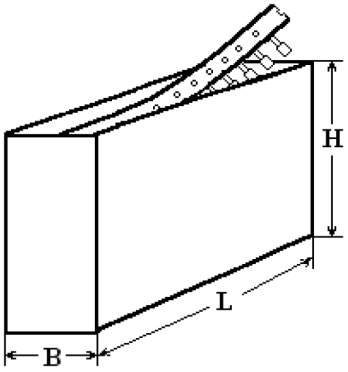
L:375±5
B:375±5
H:265±5

2. Inner packing box for bulk



L:355±3
B:175±3
H:118±3

3. Box sizes for Ammo-pack



L:330±3
B:48±3
H:260±3