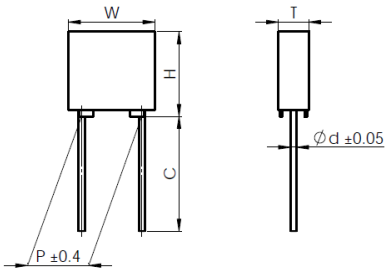
Box-type metallized polyester film capacitor (Stacked version)

■ Outline Drawing



■ Features

- Metallized polyester film, stacked construction
- Plastic case（UL94 V-0），Epoxy resin sealing
- High dv/dt ability

■ Typical Applications:

- By-passing, blocking, coupling, decoupling,
- Pulse logic, timing, compact fluorescent lamps.
- Inverter for LCD monitors, automotive DC motor suppression

■ Specifications

Reference Standard	GB 7332(IEC 60384-2)		
Climatic Category	55/125/56		
Rated temperature	85℃		
Operating temperature	-55℃~125℃ (+85℃ to +125℃: decreasing factor 1.25% per ℃ for U_R)		
Rated Voltage	50/63V, 100V, 250V, 400V, 500V, 630V,700V		
Capacitance Range	0.0010μF ~ 2.2μF		
Capacitance Tolerance	±5%(J), ±10%(K), ±20%(M)		
Voltage Proof	1.4U_R(5s)		
Dissipation Factor	Frequency	$C_N \leq 0.1\mu F$	$C_N > 0.1\mu F$
	1kHz	≤1.0%	≤1.0%
	10kHz	≤1.5%	≤1.5%
	100kHz	≤3.0%	-
Insulation Resistance	U_R>100V	≥3 0000MΩ, C_N≤0.33μF ≥10 000s, C_N>0.33μF	(20℃,100V,1min)
	U_R≤100V	≥15 000MΩ, C_N≤0.33μF ≥5 000s, 0.33μF<C_N≤1μF ≥1 000s, C_N >1μF	(20℃,10V,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)	
		pattern I	pattern II
	50/63	250	75
	100	300	85
	250	400	100
	400	600	150
	500	700	200
	630	800	
	700	-	250

■ Part number system

The 15 digits part number is formed as follow:

C24 Pattern I (High performance)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	2	4							2	0				

C24 Pattern II (Reduced size)

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

Digit 1 to 3 Series code

C24=CL23B

Digit 4 to 5 DC rated voltage

1H=50V 1J=63V 2A=100V 2E=250V

2G=400V 2H=500V 2J=630V 1V=700V

Digit 6 to 8 Rated capacitance value

For example : $103=10\times10^3pF=0.01uF$

Digit 9 Capacitance tolerance

J=±5%,K=±10%, M=±20%

Digit 10 Lead pitch

2=5.0

Digit 11 Internal use

S=pattern II

Digit 12 to 15 Lead form and packaging code

Table 1 lead dimensions and packaging code

Digit 12		Digit 13		Digit 14		Digit 15	
code	explanation	code	explanation	code	explanation	code	explanation
A	ammo-pack	2	F=5.0mm	0	straight	1	each cap. among two consecutive holes P3=12.7mm,H=18.5mm (For pitch=5.0mm)
C	straight lead "C"in the figure above	code	explanation			0	Length tolerance ±0.5mm Or standard length
		00	standard lead length (16mm~22mm)				
		45	lead length 4.5mm				
Note: Recommend short lead due to long lead could deform easily.							

■ **Dimensions(mm)**

Capacitor Thickness: T	≤3.5	>3.5
Dimension Tolerance (W, H, T)	±0.2	±0.4

Pattern II (Reduced size)

50Vdc (30Vac)/63Vdc (40Vac) #						
C_N (μF)	W	H	T	P	d	Part number
0.15	7.2	6.5	2.5	5.0	0.5	C241J154-2S****
0.18	7.2	6.5	2.5	5.0	0.5	C241J184-2S****
0.22	7.2	6.5	2.5	5.0	0.5	C241J224-2S****
0.27	7.2	6.5	2.5	5.0	0.5	C241J274-2S****
0.33	7.2	7.5	3.5	5.0	0.5	C241J334-2S****
0.39	7.2	7.5	3.5	5.0	0.5	C241J394-2S****
0.47	7.2	7.5	3.5	5.0	0.5	C241J474-2S****
0.56	7.2	9.5	4.5	5.0	0.6	C241J564-2S****
0.68	7.2	9.5	4.5	5.0	0.6	C241J684-2S****
0.82	7.2	9.5	4.5	5.0	0.6	C241J824-2S****
1.0	7.2	10.0	5.0	5.0	0.6	C241J105-2S****
1.5	7.2	11.0	6.0	5.0	0.6	C241J155-2S****
2.2	7.2	11.0	6.0	5.0	0.6	C241J225-2S****

100 Vdc (63Vac)						
C_N (μF)	W	H	T	P	d	Part number
0.10	7.2	6.5	2.5	5.0	0.5	C242A104-2S****
0.12	7.2	6.5	2.5	5.0	0.5	C242A124-2S****
0.15	7.2	7.5	3.5	5.0	0.5	C242A154-2S****
0.18	7.2	7.5	3.5	5.0	0.5	C242A184-2S****
0.22	7.2	7.5	3.5	5.0	0.5	C242A224-2S****
0.27	7.2	9.5	4.5	5.0	0.6	C242A274-2S****
0.33	7.2	9.5	4.5	5.0	0.6	C242A334-2S****
0.39	7.2	9.5	4.5	5.0	0.6	C242A394-2S****
0.47	7.2	10.0	5.0	5.0	0.6	C242A474-2S****
0.56	7.2	10.0	5.0	5.0	0.6	C242A564-2S****
0.68	7.2	11.0	6.0	5.0	0.6	C242A684-2S****
0.82	7.2	11.0	6.0	5.0	0.6	C242A824-2S****
1.0	7.2	11.0	6.0	5.0	0.6	C242A105-2S****

250 Vdc (140Vac)						
C_N (μF)	W	H	T	P	d	Part number
0.022	7.2	6.5	2.5	5.0	0.5	C242E223-2S****
0.027	7.2	6.5	2.5	5.0	0.5	C242E273-2S****
0.033	7.2	6.5	2.5	5.0	0.5	C242E333-2S****
0.039	7.2	7.5	3.5	5.0	0.5	C242E393-2S****
0.047	7.2	7.5	3.5	5.0	0.5	C242E473-2S****
0.056	7.2	7.5	3.5	5.0	0.5	C242E563-2S****
0.068	7.2	7.5	3.5	5.0	0.5	C242E683-2S****
0.082	7.2	9.5	4.5	5.0	0.6	C242E823-2S****
0.10	7.2	9.5	4.5	5.0	0.6	C242E104-2S****
0.12	7.2	9.5	4.5	5.0	0.6	C242E124-2S****
0.15	7.2	10.0	5.0	5.0	0.6	C242E154-2S****
0.18	7.2	11.0	6.0	5.0	0.6	C242E184-2S****
0.22	7.2	11.0	6.0	5.0	0.6	C242E224-2S****

400 Vdc (160Vac)						
C_N (μF)	W	H	T	P	d	Part number
0.0056	7.2	6.5	2.5	5.0	0.5	C242G562-2S****
0.0068	7.2	6.5	2.5	5.0	0.5	C242G682-2S****
0.0082	7.2	6.5	2.5	5.0	0.5	C242G822-2S****
0.010	7.2	6.5	2.5	5.0	0.5	C242G103-2S****
0.012	7.2	6.5	2.5	5.0	0.5	C242G123-2S****
0.015	7.2	7.5	3.5	5.0	0.5	C242G153-2S****
0.018	7.2	7.5	3.5	5.0	0.5	C242G183-2S****
0.022	7.2	7.5	3.5	5.0	0.5	C242G223-2S****
0.027	7.2	7.5	3.5	5.0	0.5	C242G273-2S****
0.033	7.2	9.5	4.5	5.0	0.6	C242G333-2S****
0.039	7.2	9.5	4.5	5.0	0.6	C242G393-2S****
0.047	7.2	9.5	4.5	5.0	0.6	C242G473-2S****
0.051	7.2	10.0	5.0	5.0	0.6	C242G513-2S****
0.056	7.2	11.0	6.0	5.0	0.6	C242G563-2S****
0.068	7.2	11.0	6.0	5.0	0.6	C242G683-2S****
0.082	7.2	11.0	6.0	5.0	0.6	C242G823-2S****
0.10	7.2	11.0	6.0	5.0	0.6	C242G104-2S****

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

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

3. "#" when the rated voltage is 50Vdc,the digit 4~5 is 1H.

Pattern II (Reduced size)

500 Vdc/630(220Vac)#						
C_N (μF)	W	H	T	P	d	Part number
0.0018	7.2	6.5	2.5	5.0	0.5	C242J182-2S****
0.0022	7.2	6.5	2.5	5.0	0.5	C242J222-2S****
0.0027	7.2	6.5	2.5	5.0	0.5	C242J272-2S****
0.0033	7.2	6.5	2.5	5.0	0.5	C242J332-2S****
0.0039	7.2	6.5	2.5	5.0	0.5	C242J392-2S****
0.0047	7.2	6.5	2.5	5.0	0.5	C242J472-2S****
0.0056	7.2	7.5	3.5	5.0	0.5	C242J562-2S****
0.0068	7.2	7.5	3.5	5.0	0.5	C242J682-2S****
0.0082	7.2	7.5	3.5	5.0	0.5	C242J822-2S****
0.010	7.2	7.5	3.5	5.0	0.5	C242J103-2S****
0.012	7.2	9.5	4.5	5.0	0.6	C242J123-2S****
0.015	7.2	9.5	4.5	5.0	0.6	C242J153-2S****
0.018	7.2	9.5	4.5	5.0	0.6	C242J183-2S****
0.022	7.2	10.0	5.0	5.0	0.6	C242J223-2S****
0.027	7.2	11.0	6.0	5.0	0.6	C242J273-2S****
0.033	7.2	11.0	6.0	5.0	0.6	C242J333-2S****

700 Vdc (250Vac)						
C_N (μF)	W	H	T	P	d	Part number
0.0010	7.2	6.5	2.5	5.0	0.5	C241V102-2S****
0.0012	7.2	6.5	2.5	5.0	0.5	C241V122-2S****
0.0015	7.2	6.5	2.5	5.0	0.5	C241V152-2S****
0.0018	7.2	6.5	2.5	5.0	0.5	C241V182-2S****
0.0022	7.2	6.5	2.5	5.0	0.5	C241V222-2S****
0.0027	7.2	6.5	2.5	5.0	0.5	C241V272-2S****
0.0033	7.2	7.5	3.5	5.0	0.5	C241V332-2S****
0.0039	7.2	7.5	3.5	5.0	0.5	C241V392-2S****
0.0047	7.2	7.5	3.5	5.0	0.5	C241V472-2S****
0.0056	7.2	7.5	3.5	5.0	0.5	C241V562-2S****
0.0068	7.2	7.5	3.5	5.0	0.5	C241V682-2S****
0.0082	7.2	9.5	4.5	5.0	0.6	C241V822-2S****
0.010	7.2	9.5	4.5	5.0	0.6	C241V103-2S****
0.012	7.2	9.5	4.5	5.0	0.6	C241V123-2S****
0.015	7.2	10.0	5.0	5.0	0.6	C241V153-2S****
0.018	7.2	11.0	6.0	5.0	0.6	C241V183-2S****
0.022	7.2	11.0	6.0	5.0	0.6	C241V223-2S****

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

2. "****"=lead dimensions and packing mode code (refer to table 1).

3. "#" when the rated voltage is 500Vdc,the digit 4~5 is 2H.

Pattern I (High performance)

50Vdc (30Vac)/63Vdc (40Vac) #						
C_N (μF)	W	H	T	P	d	Part number
0.0010	7.2	6.5	2.5	5.0	0.5	C241J102-20****
0.0012	7.2	6.5	2.5	5.0	0.5	C241J122-20****
0.0015	7.2	6.5	2.5	5.0	0.5	C241J152-20****
0.0018	7.2	6.5	2.5	5.0	0.5	C241J182-20****
0.0022	7.2	6.5	2.5	5.0	0.5	C241J222-20****
0.0027	7.2	6.5	2.5	5.0	0.5	C241J272-20****
0.0033	7.2	6.5	2.5	5.0	0.5	C241J332-20****
0.0039	7.2	6.5	2.5	5.0	0.5	C241J392-20****
0.0047	7.2	6.5	2.5	5.0	0.5	C241J472-20****
0.0056	7.2	6.5	2.5	5.0	0.5	C241J562-20****
0.0068	7.2	6.5	2.5	5.0	0.5	C241J682-20****
0.0082	7.2	6.5	2.5	5.0	0.5	C241J822-20****
0.010	7.2	6.5	2.5	5.0	0.5	C241J103-20****
0.012	7.2	6.5	2.5	5.0	0.5	C241J123-20****
0.015	7.2	6.5	2.5	5.0	0.5	C241J153-20****
0.018	7.2	6.5	2.5	5.0	0.5	C241J183-20****
0.022	7.2	6.5	2.5	5.0	0.5	C241J223-20****
0.027	7.2	6.5	2.5	5.0	0.5	C241J273-20****
0.033	7.2	6.5	2.5	5.0	0.5	C241J333-20****
0.039	7.2	6.5	2.5	5.0	0.5	C241J393-20****
0.047	7.2	6.5	2.5	5.0	0.5	C241J473-20****
0.056	7.2	6.5	2.5	5.0	0.5	C241J563-20****
0.068	7.2	6.5	2.5	5.0	0.5	C241J683-20****
0.082	7.2	6.5	2.5	5.0	0.5	C241J823-20****
0.10	7.2	6.5	2.5	5.0	0.5	C241J104-20****
0.12	7.2	6.5	2.5	5.0	0.5	C241J124-20****
0.15	7.2	7.5	3.5	5.0	0.5	C241J154-20****
0.18	7.2	7.5	3.5	5.0	0.5	C241J184-20****
0.22	7.2	7.5	3.5	5.0	0.5	C241J224-20****
0.27	7.2	9.5	4.5	5.0	0.6	C241J274-20****
0.33	7.2	9.5	4.5	5.0	0.6	C241J334-20****
0.39	7.2	9.5	4.5	5.0	0.6	C241J394-20****
0.47	7.2	10.0	5.0	5.0	0.6	C241J474-20****
0.56	7.2	10.0	5.0	5.0	0.6	C241J564-20****
0.68	7.2	11.0	6.0	5.0	0.6	C241J684-20****
0.82	7.2	11.0	6.0	5.0	0.6	C241J824-20****
1.0	7.2	11.0	6.0	5.0	0.6	C241J105-20****

100 Vdc (63Vac)						
C_N (μF)	W	H	T	P	d	Part number
0.0010	7.2	6.5	2.5	5.0	0.5	C242A102-20****
0.0012	7.2	6.5	2.5	5.0	0.5	C242A122-20****
0.0015	7.2	6.5	2.5	5.0	0.5	C242A152-20****
0.0018	7.2	6.5	2.5	5.0	0.5	C242A182-20****
0.0022	7.2	6.5	2.5	5.0	0.5	C242A222-20****
0.0027	7.2	6.5	2.5	5.0	0.5	C242A272-20****
0.0033	7.2	6.5	2.5	5.0	0.5	C242A332-20****
0.0039	7.2	6.5	2.5	5.0	0.5	C242A392-20****
0.0047	7.2	6.5	2.5	5.0	0.5	C242A472-20****
0.0056	7.2	6.5	2.5	5.0	0.5	C242A562-20****
0.0068	7.2	6.5	2.5	5.0	0.5	C242A682-20****
0.0082	7.2	6.5	2.5	5.0	0.5	C242A822-20****
0.010	7.2	6.5	2.5	5.0	0.5	C242A103-20****
0.012	7.2	6.5	2.5	5.0	0.5	C242A123-20****
0.015	7.2	6.5	2.5	5.0	0.5	C242A153-20****
0.018	7.2	6.5	2.5	5.0	0.5	C242A183-20****
0.022	7.2	6.5	2.5	5.0	0.5	C242A223-20****
0.027	7.2	6.5	2.5	5.0	0.5	C242A273-20****
0.033	7.2	6.5	2.5	5.0	0.5	C242A333-20****
0.039	7.2	6.5	2.5	5.0	0.5	C242A393-20****
0.047	7.2	6.5	2.5	5.0	0.5	C242A473-20****
0.056	7.2	6.5	2.5	5.0	0.5	C242A563-20****
0.068	7.2	6.5	2.5	5.0	0.5	C242A683-20****
0.082	7.2	6.5	2.5	5.0	0.5	C242A823-20****
0.10	7.2	7.5	3.5	5.0	0.5	C242A104-20****
0.12	7.2	9.5	4.5	5.0	0.6	C242A124-20****
0.15	7.2	9.5	4.5	5.0	0.6	C242A154-20****
0.18	7.2	9.5	4.5	5.0	0.6	C242A184-20****
0.22	7.2	10.0	5.0	5.0	0.6	C242A224-20****
0.27	7.2	10.0	5.0	5.0	0.6	C242A274-20****
0.33	7.2	11.0	6.0	5.0	0.6	C242A334-20****
0.39	7.2	11.0	6.0	5.0	0.6	C242A394-20****
0.47	7.2	11.0	6.0	5.0	0.6	C242A474-20****
0.56	7.2	11.0	6.0	5.0	0.6	C242A564-20****

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

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

3. "#" when the rated voltage is 50Vdc,the digit 4~5 is 1H.

Pattern I (High performance)

250 Vdc (160Vac)						
C_N (μF)	W	H	T	P	d	Part number
0.0010	7.2	6.5	2.5	5.0	0.5	C242E102-20****
0.0012	7.2	6.5	2.5	5.0	0.5	C242E122-20****
0.0015	7.2	6.5	2.5	5.0	0.5	C242E152-20****
0.0018	7.2	6.5	2.5	5.0	0.5	C242E182-20****
0.0022	7.2	6.5	2.5	5.0	0.5	C242E222-20****
0.0027	7.2	6.5	2.5	5.0	0.5	C242E272-20****
0.0033	7.2	6.5	2.5	5.0	0.5	C242E332-20****
0.0039	7.2	6.5	2.5	5.0	0.5	C242E392-20****
0.0047	7.2	6.5	2.5	5.0	0.5	C242E472-20****
0.0056	7.2	6.5	2.5	5.0	0.5	C242E562-20****
0.0068	7.2	6.5	2.5	5.0	0.5	C242E682-20****
0.0082	7.2	6.5	2.5	5.0	0.5	C242E822-20****
0.010	7.2	6.5	2.5	5.0	0.5	C242E103-20****
0.012	7.2	6.5	2.5	5.0	0.5	C242E123-20****
0.015	7.2	6.5	2.5	5.0	0.5	C242E153-20****
0.018	7.2	6.5	2.5	5.0	0.5	C242E183-20****
0.022	7.2	7.5	3.5	5.0	0.5	C242E223-20****
0.027	7.2	7.5	3.5	5.0	0.5	C242E273-20****
0.033	7.2	7.5	3.5	5.0	0.5	C242E333-20****
0.039	7.2	7.5	3.5	5.0	0.5	C242E393-20****
0.047	7.2	9.5	4.5	5.0	0.6	C242E473-20****
0.056	7.2	9.5	4.5	5.0	0.6	C242E563-20****
0.068	7.2	9.5	4.5	5.0	0.6	C242E683-20****
0.082	7.2	10.0	5.0	5.0	0.6	C242E823-20****
0.10	7.2	10.0	5.0	5.0	0.6	C242E104-20****
0.12	7.2	11.0	6.0	5.0	0.6	C242E124-20****
0.15	7.2	11.0	6.0	5.0	0.6	C242E154-20****

400 Vdc (200Vac)						
C_N (μF)	W	H	T	P	d	Part number
0.0010	7.2	6.5	2.5	5.0	0.5	C242G102-20****
0.0012	7.2	6.5	2.5	5.0	0.5	C242G122-20****
0.0015	7.2	6.5	2.5	5.0	0.5	C242G152-20****
0.0018	7.2	6.5	2.5	5.0	0.5	C242G182-20****
0.0022	7.2	6.5	2.5	5.0	0.5	C242G222-20****
0.0027	7.2	6.5	2.5	5.0	0.5	C242G272-20****
0.0033	7.2	6.5	2.5	5.0	0.5	C242G332-20****
0.0039	7.2	6.5	2.5	5.0	0.5	C242G392-20****
0.0047	7.2	6.5	2.5	5.0	0.5	C242G472-20****
0.0056	7.2	7.5	3.5	5.0	0.5	C242G562-20****
0.0068	7.2	7.5	3.5	5.0	0.5	C242G682-20****
0.0082	7.2	7.5	3.5	5.0	0.5	C242G822-20****
0.010	7.2	7.5	3.5	5.0	0.5	C242G103-20****
0.012	7.2	9.5	4.5	5.0	0.6	C242G123-20****
0.015	7.2	9.5	4.5	5.0	0.6	C242G153-20****
0.018	7.2	9.5	4.5	5.0	0.6	C242G183-20****
0.022	7.2	10.0	5.0	5.0	0.6	C242G223-20****
0.027	7.2	11.0	6.0	5.0	0.6	C242G273-20****
0.033	7.2	11.0	6.0	5.0	0.6	C242G333-20****
0.039	7.2	11.0	6.0	5.0	0.6	C242G393-20****
0.047	7.2	11.0	6.0	5.0	0.6	C242G473-20****

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

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

Pattern I (High performance)

500 Vdc (220Vac)						
C_N (μF)	W	H	T	P	d	Part number
0.0010	7.2	6.5	2.5	5.0	0.5	C242H102-20****
0.0012	7.2	6.5	2.5	5.0	0.5	C242H122-20****
0.0015	7.2	6.5	2.5	5.0	0.5	C242H152-20****
0.0018	7.2	6.5	2.5	5.0	0.5	C242H182-20****
0.0022	7.2	6.5	2.5	5.0	0.5	C242H222-20****
0.0027	7.2	6.5	2.5	5.0	0.5	C242H272-20****
0.0033	7.2	7.5	3.5	5.0	0.5	C242H332-20****
0.0039	7.2	7.5	3.5	5.0	0.5	C242H392-20****
0.0047	7.2	7.5	3.5	5.0	0.5	C242H472-20****
0.0056	7.2	7.5	3.5	5.0	0.5	C242H562-20****
0.0068	7.2	9.5	4.5	5.0	0.6	C242H682-20****
0.0082	7.2	9.5	4.5	5.0	0.6	C242H822-20****
0.010	7.2	9.5	4.5	5.0	0.6	C242H103-20****
0.012	7.2	9.5	4.5	5.0	0.6	C242H123-20****
0.015	7.2	10.0	5.0	5.0	0.6	C242H153-20****
0.018	7.2	11.0	6.0	5.0	0.6	C242H183-20****
0.022	7.2	11.0	6.0	5.0	0.6	C242H223-20****
0.027	7.2	11.0	6.0	5.0	0.6	C242H273-20****

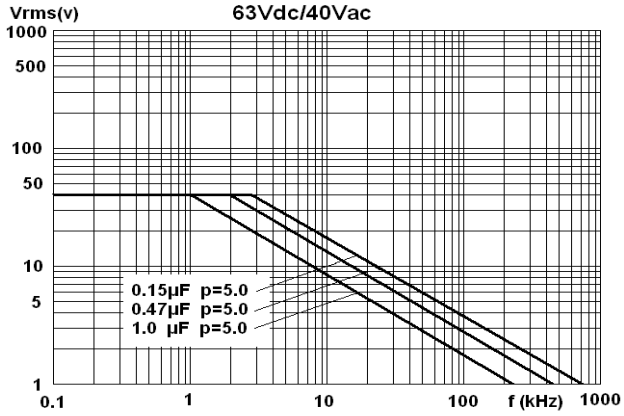
630 Vdc (220Vac)						
C_N (μF)	W	H	T	P	d	Part number
0.0010	7.2	6.5	2.5	5.0	0.5	C242J102-20****
0.0012	7.2	6.5	2.5	5.0	0.5	C242J122-20****
0.0015	7.2	6.5	2.5	5.0	0.5	C242J152-20****
0.0018	7.2	7.5	3.5	5.0	0.5	C242J182-20****
0.0022	7.2	7.5	3.5	5.0	0.5	C242J222-20****
0.0027	7.2	7.5	3.5	5.0	0.5	C242J272-20****
0.0033	7.2	7.5	3.5	5.0	0.5	C242J332-20****
0.0039	7.2	7.5	3.5	5.0	0.5	C242J392-20****
0.0047	7.2	9.5	4.5	5.0	0.6	C242J472-20****
0.0056	7.2	9.5	4.5	5.0	0.6	C242J562-20****
0.0068	7.2	9.5	4.5	5.0	0.6	C242J682-20****
0.0082	7.2	9.5	4.5	5.0	0.6	C242J822-20****
0.010	7.2	10.0	5.0	5.0	0.6	C242J103-20****
0.012	7.2	11.0	6.0	5.0	0.6	C242J123-20****
0.015	7.2	11.0	6.0	5.0	0.6	C242J153-20****
0.018	7.2	11.0	6.0	5.0	0.6	C242J183-20****

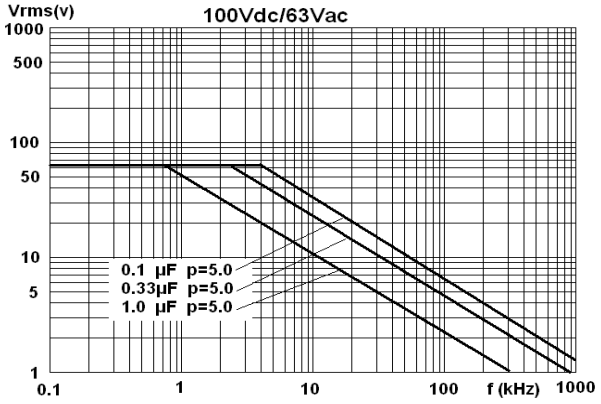
Note: 1. "-"=capacitance tolerance code, M=±20%,K=±10%,J=±5%

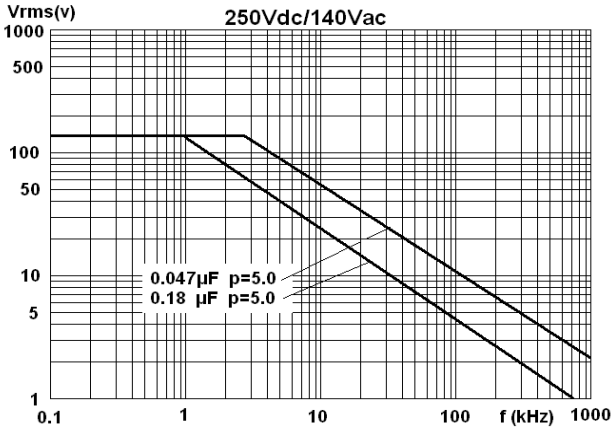
2. "****"=lead form and packing code (refer to table 1).

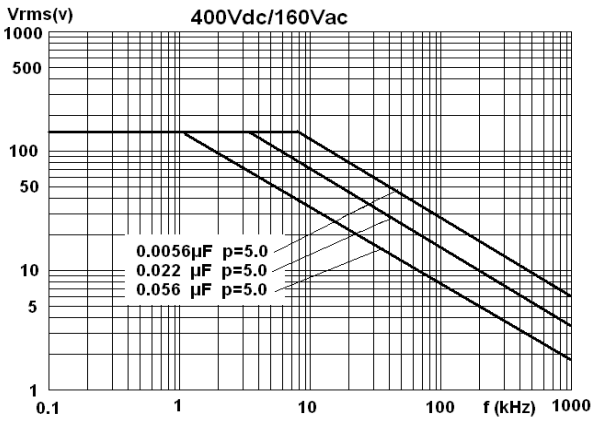
■ MAX. VOLTAGE(Vr.m.s) VERSUS FREQUENCY

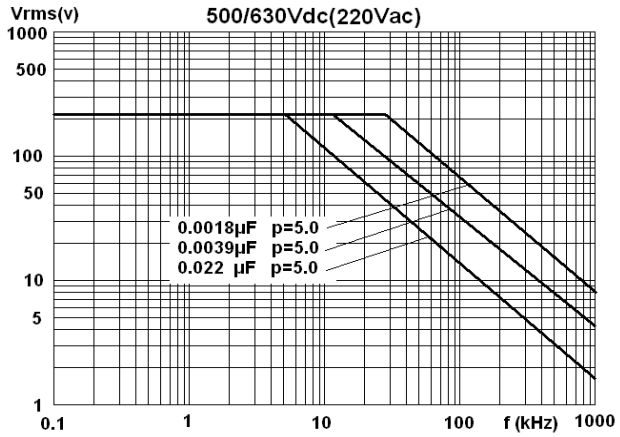
Pattern II (Reduced sized)

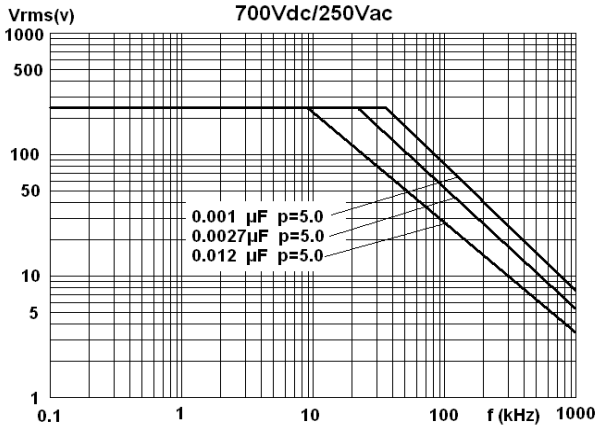








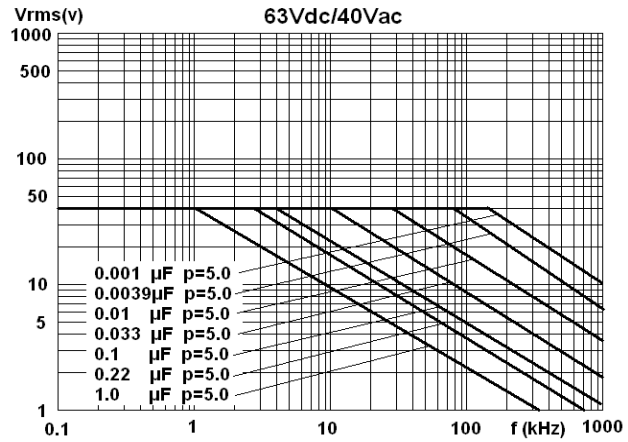


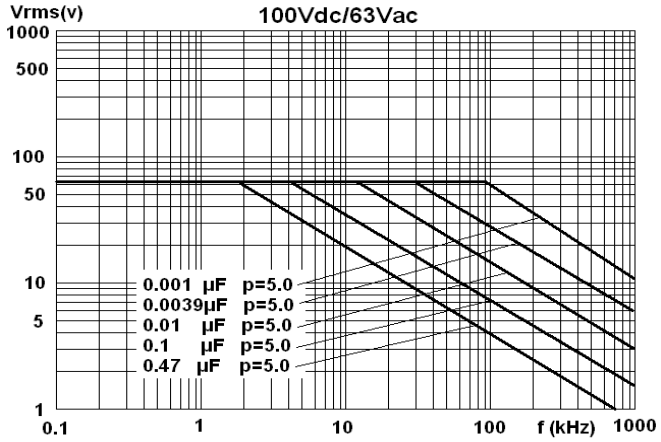


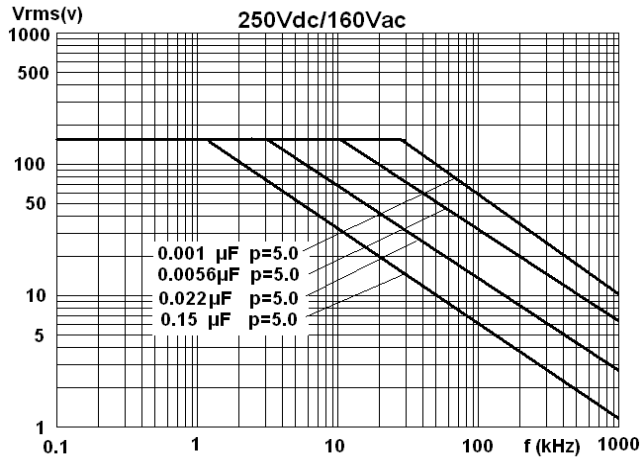
Note: sinusoidal wave-form、environment temperature≤85℃,internal temperature rise △T=15℃, p (pitch) in mm..

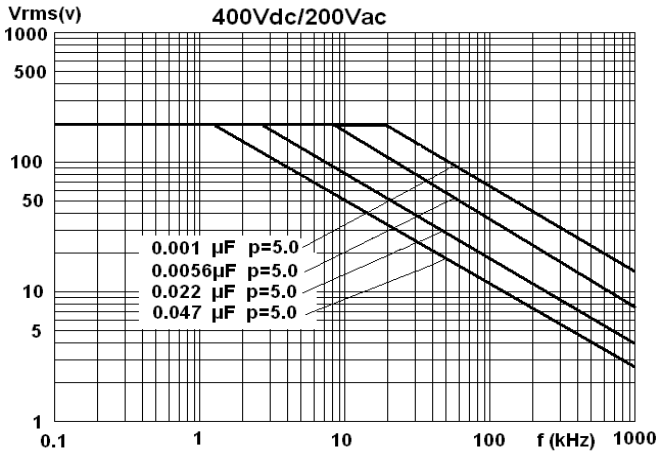
■ MAX. VOLTAGE(Vr.m.s) VERSUS FREQUENCY

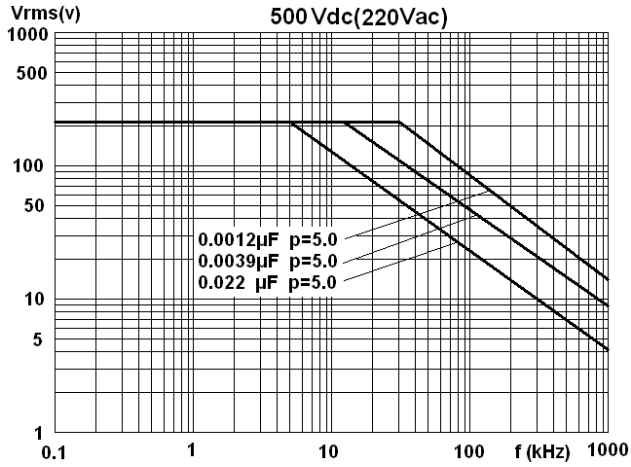
Pattern I (High performance)

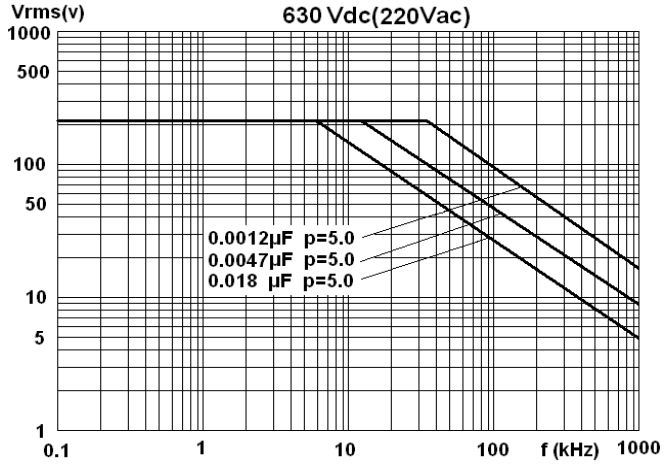












Note: sinusoidal wave-form、environment temperature≤85℃,internal temperature rise △T=15℃, p (pitch) in mm..

■ Test Method And Performance

No.	Item		Performance	Test method GB/T 7332 (IEC60384-2)
1	Capacitance tolerance		J(±5%), K(±10%), M(±20%)	1kHz, 3%U_R(Vrms)max.
2	Tangent of the loss angle		tanδ≤0.010(1kHz) tanδ≤0.015(10kHz) tanδ≤0.030(100kHz, C<0.1μF)	1kHz or 10 kHz or 100 kHz ≤3%U_R(Vrms) or 1 Vrms(whichever is the minor)
3	Dielectric strength		There shall be no breakdown or flashover.	1.4U_R, 5s
4	Insulation resistance		U_R≤100V ≥15 000MΩ, C_N≤0.33μF ≥5 000s, 0.33μF<C_N≤1μF ≥1 000s, C_N>1μF U_R>100V ≥3 0000MΩ, C_N≤0.33μF ≥10 000s , C_N>0.33μF,	U_R≤100V, Charging voltage 10V U_R>100V, Charging voltage 100V 20˚C, measuring after applying voltage for 1 minute
5	Solderability		Good quality of tinning	Solder temperature:245˚C±5˚C Immersion time: 2.0s±0.5s
6	Initial measurement		Capacitance, Tanδ(10kHz)	
	Terminal Strength (straight lead)		There shall be no visible damage	Tension Ua1: Pull: ϕd=0.5mm,5N; ϕd=0.6mm,10N Bend Ub: The pull of bend: ϕd=0.5mm, 2.5N ϕd=0.6mm, 5N 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 tanδ:≤0.003(10kHz)	
7	Component's resistance o f solvents		The dimensions shall reach the requirement of Table 1, and the change of capacitor weight shall not beyond 1%.	Solvent: Industrial isopropanol. Solvent temperature:23˚C±5˚C Immersion time:5min±0.5min Reverting time:48h
8	Initial measurement		Capacitance, Tanδ(10kHz)	
	Rapid change of tempera ture		There shall be no evidence of deterioration.	θ_A=-55˚C, θ_B =+125˚C 5 cycles, Duration: t=30min
	Vibration(straight lead)		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 foreach direction, total 6h.
	Bump(straight lead)		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 tanδ: ≤0.003 (10kHz) IR: ≥ 50% of the rated value	
9	climate sequence	Initial measurement	Capacitance, Tanδ(10kHz)	
		Dry heat		+125℃,16h

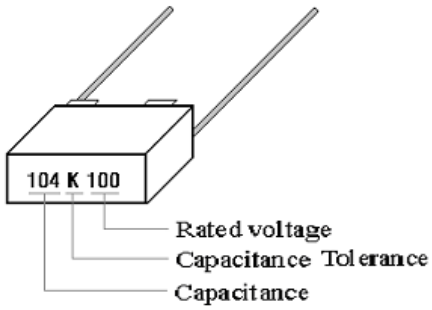
No.	Item		Performance	Test method GB/T 7332 (IEC60384-2)
9	climate sequence (continue)	Damp heat, Cyclic		Test Db, Severity: b, the first cycle
		Cold		-55℃, 2h
		Low air pressure	There shall be no permanent break down, flashover or other harmful deformation when applying U_R at the last 1 minute.	15℃~35℃,8.5kPa, 1h,
		Damp heat, cyclic other		Test Db, Severity b, the other cycles, Applying U_R for 1 minute after the test finished.
		Final measu rement	There shall be no evidence of deterioration and the marking shall be legible. ΔC/C≤ ±5%(relative to the initial value) Increase of tanδ: ≤0.005(10kHz) IR: ≥50% of the rated value	
10	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 tanδ ≤0.005(10kHz) IR: ≥50% of the rated value	Temperature:40˚C ±2˚C Humidity: 93^{+2}_{-3} %RH Duration: 56 days
11	Endurance		There shall be no evidence of deterioration and the marking shall be legible. ΔC/C ≤ ±5%(relative to the initial value) Increase of tanδ: ≤0.003 (10kHz) IR: ≥50% of the rated value	Temperature: +85℃ Voltage: 1.25× U_R Duration: 2 000h or Temperature: +125℃ Voltage: 1.25×Uc (Uc=0.5U_R) Duration: 2 000h
12	Temperature characteristic		Measuring capacitance at test point b, d, f: Characteristic at lower category temperature -55˚C: -10%≤(C_b-C_d)/C_d≤0% Characteristic at upper category temperature +125˚C: 0%≤(C_f-C_d)/C_d ≤+18% I.R. (test at point f): U_R≤100V: ≥15MΩ (C≤0.33μF) ≥5s (C>0.33μF) U_R>100V: ≥30MΩ (C≤0.33μF) ≥10s (C>0.33μF)	Static method:The Capacitors should be kept at the following temperature in turn: a(20±2) ˚C, b(–55±3) ˚C, d(20±2) ˚C， f(+125±2) ˚C, g(20±2) ˚C
13	Charging and discharging		ΔC/C ≤±5%(relative to the initial value) Increase of tanδ: ≤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/T 2828.1）	
	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

For example:



■ Taping specification for box-type capacitor

▲Outline Drawing

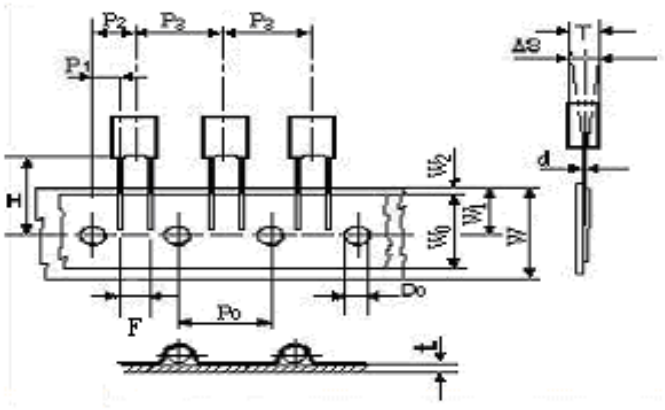


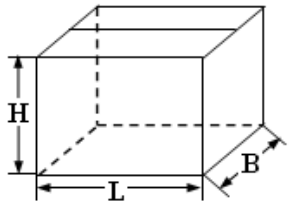
Fig 1

▲ Taping Dimensions(mm)

Technology index title	Code	Dimensions	
		P=5.0	Tolerance
Taping type	—	Fig 1	——
Part number Digit12-15	Ammo-pack	A201	
Taping pitch	P_3	12.7	±1.0
Feed hole pitch	P_0	12.7	±0.3
Center of wire	P_1	3.85	±0.7
Center of body	P_2	6.35	±1.3
Pitch of taping wire	F	5.0	+0.6 -0.1
Component alignment	△S	0	±2.0
Height of component from tape center	H	18.5	±0.5
Carrier tape width	W	18.0	+1.0 -0.5
Hold down tape width	W_0	6min	——
Hole position	W_1	9.0	±0.5
Hold down tape sition	W_2	3max	——
Feed hole dia.	D_0	4.0	±0.2
Tape thickness	t	0.7	±0.2

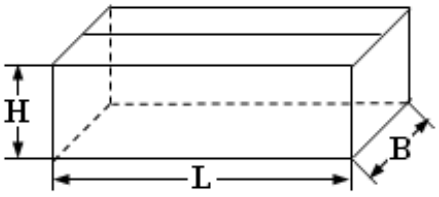
■ Packing box sizes(mm)(example)

1. Out packing box for bulk



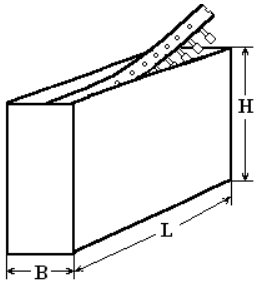
L:375±5
B:375±5
H:265±5

2. Inner packing box for bulk



L:355±3
B:175±3
H:118±3

3. Box sizes for Ammo-pack



L:350±3
B:50±3
H:260±3