



SPECIFICATION FOR APPROVAL

File No.: Q/FRK 0.GS.E.C25-A04

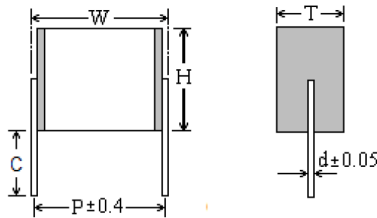
Product Name Uncoated Metallized Polyester Film Capacitor(Stacked version)
Product Type C25(CL25 Series)
Product Code
Customer
Customer Code
Issue Date 2010-11



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Uncoated Metallized Polyester Film Capacitor(Stacked version)

■ Outline Drawing



■ Features

- metallized polyester film, stacked construction, Uncoated
- High impulse and pulse strength

■ Typical Applications

- DC impulse and pulse circuits
- SMPS, converter, Electronic ballasts, compact fluorescent lamps

■ Specifications

Reference Standard	GB/T 7332(IEC 60384-2)		
Climatic Category	55/125/56		
Rated Temperature	85°C for V_R (dc) 75°C for V_R (ac)		
Operating Temperature Range	-55°C~125°C (+85°C to +125°C: decreasing factor 1.25% per °C for V_R (dc)) (+75°C to +125°C: decreasing factor 1.35% per °C for V_R (ac))		
Rated Voltage	63V, 100V, 250V, 400V, 630V, 1 000V		
Capacitance Range	0.0010μF~10.0μF		
Capacitance Tolerance	±5%(J), ±10%(K), ±20%(M)		
Voltage Proof	1.40 U_R (2s)		
Dissipation Factor	≤0.0100 (1kHz)		
	≤0.0150 (10kHz, C_R ≤1μF)		
	≤0.0300 (100kHz, C_R ≤0.1μF)		
Insulation Resistance	U_R ≤100V	≥3750MΩ, C ≤0.33μF ≥1250s, C >0.33μF	U_R <100V, charge voltage is 10V U_R ≥100V, charge voltage is 100V (20°C, 1min)
	U_R >100V	≥7500MΩ, C ≤0.33μF ≥2500s, C >0.33μF	

■ 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	5															

Digit 1 to 3 Series code

C25=CL25

Digit 4 to 5 DC rated voltage

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

2G=400V 2J=630V 3A=1000V

Digit 6 to 8 Rated capacitance value

For example : 103=10×10³pF=0.01uF

Digit 9 Capacitance tolerance

J=±5%,K=±10%, M=±20%

Digit 10 Lead pitch

2=5.0mm 3=7.5mm 4=10.0mm 6=15.0mm

Digit 11 Internal use

Digit 12 to 15 Lead form and packaging code

Digit 16 to 18 Internal use

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=5.0/7.5mm)
		3	F=7.5mm			2	each cap. among two consecutive holes P3=12.7mm, H=18.5mm (For pitch=10mm)
		4	F=10.0mm			5	each cap. among two consecutive holes P3=25.4mm, H=18.5mm (For pitch=15mm)
		6	F=15.0mm				
C	straight lead "C" in the figure above	code	explanation	0		0	Length tolerance ±0.5mm Or standard length
		00	standard lead length (18mm~22mm)				
		45	lead length 4.5mm				

■ Dimensions (mm)

63Vdc (40Vac)						
C (μF)	W max	H max	T max	P	d	part number
0.0010	6.5	3.9	2.0	5.0	0.5	C251J102-20****+++
0.0012	6.5	4.0	2.2	5.0	0.5	C251J122-20****+++
0.0015	6.5	5.0	2.2	5.0	0.5	C251J152-20****+++
0.0018	6.5	4.9	2.5	5.0	0.5	C251J182-20****+++
0.0022	6.5	4.7	2.2	5.0	0.5	C251J22-20****+++
0.0027	6.5	4.7	2.5	5.0	0.5	C251J272-20****+++
0.0033	6.5	5.2	2.7	5.0	0.5	C251J332-20****+++
0.0039	6.5	3.8	2.0	5.0	0.5	C251J392-20****+++
0.0047	6.5	3.9	2.2	5.0	0.5	C251J472-20****+++
0.0056	6.5	4.6	2.2	5.0	0.5	C251J562-20****+++
0.0068	6.5	4.6	2.5	5.0	0.5	C251J682-20****+++
0.0082	6.5	5.0	2.7	5.0	0.5	C251J822-20****+++
0.010	6.5	3.7	2.0	5.0	0.5	C251J103-20****+++
0.012	6.5	4.1	2.0	5.0	0.5	C251J123-20****+++
0.015	6.5	3.6	2.5	5.0	0.5	C251J153-20****+++
0.018	6.5	4.3	2.5	5.0	0.5	C251J183-20****+++
0.022	6.5	4.2	2.0	5.0	0.5	C251J223-20****+++
0.027	6.5	4.4	2.2	5.0	0.5	C251J273-20****+++
0.033	6.5	4.4	2.5	5.0	0.5	C251J333-20****+++
0.039	6.5	4.7	2.7	5.0	0.5	C251J393-20****+++
0.047	6.5	4.0	2.0	5.0	0.5	C251J473-20****+++
0.056	6.5	4.1	2.2	5.0	0.5	C251J563-20****+++
0.068	6.5	4.1	2.5	5.0	0.5	C251J683-20****+++
0.082	6.5	4.4	2.7	5.0	0.5	C251J823-20****+++
0.10	6.5	3.8	2.0	5.0	0.5	C251J104-20****+++
0.12	6.5	3.9	2.2	5.0	0.5	C251J124-20****+++
0.15	6.5	4.8	2.2	5.0	0.5	C251J154-20****+++
0.18	6.5	4.9	2.4	5.0	0.5	C251J184-20****+++
0.22	6.5	4.2	2.5	5.0	0.5	C251J224-20****+++
0.27	6.5	4.6	2.7	5.0	0.5	C251J274-20****+++
0.33	6.5	5.1	2.9	5.0	0.5	C251J334-20****+++
0.39	6.5	5.2	3.2	5.0	0.5	C251J394-20****+++
0.47	6.5	5.2	3.7	5.0	0.5	C251J474-20****+++
0.56	6.5	7.4	3.2	5.0	0.5	C251J564-20****+++
0.68	6.5	7.5	3.7	5.0	0.5	C251J684-20****+++
0.82	6.5	7.7	4.2	5.0	0.5	C251J824-20****+++
1.0	6.5	8.7	4.7	5.0	0.5	C251J105-20****+++

63Vdc (40Vac)						
C (μF)	W max	H max	T max	P	d	part number
0.22	9.0	4.0	2.4	7.5	0.5	C251J224-30****+++
0.27	9.0	4.6	2.5	7.5	0.5	C251J274-30****+++
0.33	9.0	5.1	2.7	7.5	0.5	C251J334-30****+++
0.39	9.0	5.9	2.7	7.5	0.5	C251J394-30****+++
0.47	9.0	5.2	2.7	7.5	0.5	C251J474-30****+++
0.56	9.0	6.2	2.7	7.5	0.5	C251J564-30****+++
0.68	9.0	5.9	3.2	7.5	0.5	C251J684-30****+++
0.82	9.0	5.9	3.7	7.5	0.5	C251J824-30****+++
1.0	9.0	6.2	4.3	7.5	0.5	C251J105-30****+++
1.2	9.0	6.4	4.8	7.5	0.5	C251J125-30****+++
1.5	9.0	7.1	5.4	7.5	0.5	C251J155-30****+++
1.8	9.0	7.6	5.8	7.5	0.5	C251J185-30****+++
2.2	9.0	8.5	6.5	7.5	0.5	C251J225-30****+++
2.7	9.0	9.6	6.9	7.5	0.5	C251J275-30****+++
3.3	9.0	11.2	7.4	7.5	0.5	C251J335-30****+++
3.9	9.0	11.3	8.5	7.5	0.5	C251J395-30****+++
4.7	9.0	12.0	9.6	7.5	0.5	C251J475-30****+++
5.6	9.0	13.0	10.5	7.5	0.5	C251J565-30****+++
6.8	9.0	13.5	12.1	7.5	0.5	C251J685-30****+++

- Note: 1. “-”=capacitance tolerance code, M=±20%,K=±10%,J=±5%
 2. “****”=lead form and packaging code (refer to table 1).

■ Dimensions (mm)

100Vdc (63Vac)						
C (μF)	W max	H max	T max	P	d	part number
0.0010	6.5	3.9	2.0	5.0	0.5	C252A102-20*****
0.0012	6.5	4.0	2.2	5.0	0.5	C252A122-20*****
0.0015	6.5	5.0	2.2	5.0	0.5	C252A152-20*****
0.0018	6.5	4.9	2.5	5.0	0.5	C252A182-20*****
0.0022	6.5	4.7	2.2	5.0	0.5	C252A222-20*****
0.0027	6.5	4.7	2.5	5.0	0.5	C252A272-20*****
0.0033	6.5	5.2	2.7	5.0	0.5	C252A332-20*****
0.0039	6.5	3.8	2.0	5.0	0.5	C252A392-20*****
0.0047	6.5	3.9	2.2	5.0	0.5	C252A472-20*****
0.0056	6.5	4.6	2.2	5.0	0.5	C252A562-20*****
0.0068	6.5	4.6	2.5	5.0	0.5	C252A682-20*****
0.0082	6.5	5.0	2.7	5.0	0.5	C252A822-20*****
0.010	6.5	3.7	2.0	5.0	0.5	C252A103-20*****
0.012	6.5	4.1	2.0	5.0	0.5	C252A123-20*****
0.015	6.5	3.6	2.5	5.0	0.5	C252A153-20*****
0.018	6.5	4.3	2.5	5.0	0.5	C252A183-20*****
0.022	6.5	4.2	2.0	5.0	0.5	C252A223-20*****
0.027	6.5	4.4	2.2	5.0	0.5	C252A273-20*****
0.033	6.5	4.4	2.5	5.0	0.5	C252A333-20*****
0.039	6.5	4.7	2.7	5.0	0.5	C252A393-20*****
0.047	6.5	4.0	2.0	5.0	0.5	C252A473-20*****
0.056	6.5	4.1	2.2	5.0	0.5	C252A563-20*****
0.068	6.5	4.1	2.5	5.0	0.5	C252A683-20*****
0.082	6.5	4.4	2.7	5.0	0.5	C252A823-20*****
0.10	6.5	3.8	2.0	5.0	0.5	C252A104-20*****
0.12	6.5	3.9	2.2	5.0	0.5	C252A124-20*****
0.15	6.5	4.8	2.2	5.0	0.5	C252A154-20*****
0.18	6.5	4.9	2.4	5.0	0.5	C252A184-20*****
0.22	6.5	4.7	2.9	5.0	0.5	C252A224-20*****
0.27	6.5	5.0	3.2	5.0	0.5	C252A274-20*****
0.33	6.5	5.1	3.7	5.0	0.5	C252A334-20*****
0.39	6.5	7.2	3.2	5.0	0.5	C252A394-20*****
0.47	6.5	7.2	3.7	5.0	0.5	C252A474-20*****
0.56	6.5	7.3	4.2	5.0	0.5	C252A564-20*****
0.68	6.5	7.9	4.7	5.0	0.5	C252A684-20*****
0.82	6.5	8.2	5.3	5.0	0.5	C252A824-20*****
1.0	6.5	8.5	5.7	5.0	0.5	C252A105-20*****

100Vdc (63Vac)						
C (μF)	W max	H max	T max	P	d	part number
0.10	9.0	4.1	2.4	7.5	0.5	C252A104-30*****
0.12	9.0	4.2	2.7	7.5	0.5	C252A124-30*****
0.15	9.0	5.2	2.7	7.5	0.5	C252A154-30*****
0.18	9.0	3.8	2.2	7.5	0.5	C252A184-30*****
0.22	9.0	4.0	2.4	7.5	0.5	C252A224-30*****
0.27	9.0	4.2	2.7	7.5	0.5	C252A274-30*****
0.33	9.0	5.1	2.7	7.5	0.5	C252A334-30*****
0.39	9.0	5.9	2.7	7.5	0.5	C252A394-30*****
0.47	9.0	5.7	3.2	7.5	0.5	C252A474-30*****
0.56	9.0	5.6	3.7	7.5	0.5	C252A564-30*****
0.68	9.0	5.8	4.2	7.5	0.5	C252A684-30*****
0.82	9.0	7.0	4.2	7.5	0.5	C252A824-30*****
1.0	9.0	7.4	4.7	7.5	0.5	C252A105-30*****
1.2	9.0	7.4	5.5	7.5	0.5	C252A125-30*****
1.5	9.0	8.0	6.3	7.5	0.5	C252A155-30*****
1.8	9.0	9.7	6.2	7.5	0.5	C252A185-30*****
2.2	9.0	10.3	7.2	7.5	0.5	C252A225-30*****
0.33	11.5	4.0	2.5	10.0	0.5	C252A334-40*****
0.39	11.5	4.7	2.5	10.0	0.5	C252A394-40*****
0.47	11.5	5	2.7	10.0	0.5	C252A474-40*****
0.56	11.5	4.7	3.2	10.0	0.5	C252A564-40*****
0.68	11.5	5.7	3.2	10.0	0.5	C252A684-40*****
0.82	11.5	5.7	3.7	10.0	0.5	C252A824-40*****
1.0	11.5	5.9	4.2	10.0	0.5	C252A105-40*****
1.2	11.5	7.1	4.2	10.0	0.5	C252A125-40*****
1.5	11.5	7.7	4.7	10.0	0.5	C252A155-40*****
1.8	11.5	8.3	5.2	10.0	0.5	C252A185-40*****
2.2	11.5	9.1	5.7	10.0	0.5	C252A225-40*****
1.0	16.5	6.1	3.2	15.0	0.6	C252A105-60*****
1.2	16.5	5.9	3.7	15.0	0.6	C252A125-60*****
1.5	16.5	6.6	4.2	15.0	0.6	C252A155-60*****
1.8	16.5	7.5	4.4	15.0	0.6	C252A185-60*****
2.2	16.5	7.5	5.2	15.0	0.6	C252A225-60*****
2.7	16.5	8.5	5.5	15.0	0.6	C252A275-60*****
3.3	16.5	9.3	6.0	15.0	0.6	C252A335-60*****
3.9	16.5	10.5	6.2	15.0	0.6	C252A395-60*****
4.7	16.5	10.8	7.0	15.0	0.6	C252A475-60*****
5.6	16.5	11.9	7.5	15.0	0.6	C252A565-60*****
6.8	16.5	12.4	8.5	15.0	0.6	C252A685-60*****
8.2	16.5	13.1	9.7	15.0	0.6	C252A825-60*****
10.0	16.5	14.5	10.6	15.0	0.6	C252A106-60*****

- Note: 1. “-”=capacitance tolerance code, M=±20%,K=±10%,J=±5%
 2. “****”=lead form and packaging code (refer to table 1).

■ Dimensions (mm)

250Vdc (160Vac)						
C (μF)	W max	H max	T max	P	d	part number
0.0010	6.5	3.9	2.0	5.0	0.5	C252E102-20****+++
0.0012	6.5	4.0	2.2	5.0	0.5	C252E122-20****+++
0.0015	6.5	5.0	2.2	5.0	0.5	C252E152-20****+++
0.0018	6.5	4.9	2.5	5.0	0.5	C252E182-20****+++
0.0022	6.5	4.7	2.2	5.0	0.5	C252E222-20****+++
0.0027	6.5	4.7	2.5	5.0	0.5	C252E272-20****+++
0.0033	6.5	5.2	2.7	5.0	0.5	C252E332-20****+++
0.0039	6.5	3.8	2.0	5.0	0.5	C252E392-20****+++
0.0047	6.5	3.9	2.2	5.0	0.5	C252E472-20****+++
0.0056	6.5	4.6	2.2	5.0	0.5	C252E562-20****+++
0.0068	6.5	4.6	2.5	5.0	0.5	C252E682-20****+++
0.0082	6.5	5.0	2.7	5.0	0.5	C252E822-20****+++
0.010	6.5	3.7	2.0	5.0	0.5	C252E103-20****+++
0.012	6.5	4.1	2.0	5.0	0.5	C252E123-20****+++
0.015	6.5	3.6	2.5	5.0	0.5	C252E153-20****+++
0.018	6.5	4.3	2.5	5.0	0.5	C252E183-20****+++
0.022	6.5	4.2	2.0	5.0	0.5	C252E223-20****+++
0.027	6.5	4.4	2.2	5.0	0.5	C252E273-20****+++
0.033	6.5	4.4	2.5	5.0	0.5	C252E333-20****+++
0.039	6.5	4.7	2.7	5.0	0.5	C252E393-20****+++
0.047	6.5	4.1	2.7	5.0	0.5	C252E473-20****+++
0.056	6.5	4.1	2.9	5.0	0.5	C252E563-20****+++
0.068	6.5	4.4	3.2	5.0	0.5	C252E683-20****+++
0.082	6.5	4.7	3.5	5.0	0.5	C252E823-20****+++
0.10	6.5	5.3	3.7	5.0	0.5	C252E104-20****+++
0.12	6.5	6.7	3.5	5.0	0.5	C252E124-20****+++
0.15	6.5	6.7	4.2	5.0	0.5	C252E154-20****+++
0.033	9.0	3.5	2.2	7.5	0.5	C252E333-30****+++
0.039	9.0	4.1	2.2	7.5	0.5	C252E393-30****+++
0.047	9.0	4.1	2.5	7.5	0.5	C252E473-30****+++
0.056	9.0	4.6	2.7	7.5	0.5	C252E563-30****+++
0.068	9.0	5.6	2.7	7.5	0.5	C252E683-30****+++
0.082	9.0	4.3	2.7	7.5	0.5	C252E823-30****+++
0.10	9.0	4.6	3.0	7.5	0.5	C252E104-30****+++
0.12	9.0	5	3.2	7.5	0.5	C252E124-30****+++
0.15	9.0	5.2	3.7	7.5	0.5	C252E154-30****+++
0.18	9.0	5.8	3.9	7.5	0.5	C252E184-30****+++
0.22	9.0	6.4	4.2	7.5	0.5	C252E224-30****+++
0.27	9.0	6.8	4.7	7.5	0.5	C252E274-30****+++
0.33	9.0	6.9	5.5	7.5	0.5	C252E334-30****+++

250Vdc (160Vac)						
C (μF)	W max	H max	T max	P	d	part number
0.047	11.5	3.8	2.2	10.0	0.5	C252E473-40****+++
0.056	11.5	4.1	2.2	10.0	0.5	C252E563-40****+++
0.068	11.5	4.1	2.5	10.0	0.5	C252E683-40****+++
0.082	11.5	4.4	2.7	10.0	0.5	C252E823-40****+++
0.10	11.5	5.4	2.7	10.0	0.5	C252E104-40****+++
0.12	11.5	5.1	3.2	10.0	0.5	C252E124-40****+++
0.15	11.5	6.4	3.2	10.0	0.5	C252E154-40****+++
0.18	11.5	5.2	3.2	10.0	0.5	C252E184-40****+++
0.22	11.5	5.3	3.7	10.0	0.5	C252E224-40****+++
0.27	11.5	5.5	4.2	10.0	0.5	C252E274-40****+++
0.33	11.5	6.1	4.5	10.0	0.5	C252E334-40****+++
0.39	11.5	6.5	4.9	10.0	0.5	C252E394-40****+++
0.47	11.5	7.5	5.2	10.0	0.5	C252E474-40****+++
0.22	16.5	4.6	3.2	15.0	0.6	C252E224-60****+++
0.27	16.5	5.6	3.2	15.0	0.6	C252E274-60****+++
0.33	16.5	5.6	3.7	15.0	0.6	C252E334-60****+++
0.39	16.5	6.6	3.7	15.0	0.6	C252E394-60****+++
0.47	16.5	6.7	4.2	15.0	0.6	C252E474-60****+++
0.56	16.5	6.8	4.7	15.0	0.6	C252E564-60****+++
0.68	16.5	7.3	5.5	15.0	0.6	C252E684-60****+++
0.82	16.5	8.8	5.5	15.0	0.6	C252E824-60****+++
1.0	16.5	9.6	6.0	15.0	0.6	C252E105-60****+++
1.2	16.5	10.0	6.7	15.0	0.6	C252E125-60****+++
1.5	16.5	11.8	7.0	15.0	0.6	C252E155-60****+++
1.8	16.5	13.1	7.5	15.0	0.6	C252E185-60****+++
2.2	16.5	12.8	9.0	15.0	0.6	C252E225-60****+++
2.7	16.5	13.9	10.2	15.0	0.6	C252E275-60****+++
3.3	16.5	15.3	11.2	15.0	0.6	C252E335-60****+++

- Note: 1. “-”=capacitance tolerance code, M=±20%,K=±10%,J=±5%
 2. “****”=lead form and packaging code (refer to table 1).

■ Dimensions (mm)

400Vdc (200Vac)						
C (μF)	W max	H max	T max	P	d	part number
0.0010	6.5	3.9	2.0	5.0	0.5	C252G102-20****+++
0.0012	6.5	4.0	2.2	5.0	0.5	C252G122-20****+++
0.0015	6.5	5.0	2.2	5.0	0.5	C252G152-20****+++
0.0018	6.5	4.9	2.5	5.0	0.5	C252G182-20****+++
0.0022	6.5	4.7	2.2	5.0	0.5	C252G222-20****+++
0.0027	6.5	4.7	2.5	5.0	0.5	C252G272-20****+++
0.0033	6.5	5.2	2.7	5.0	0.5	C252G332-20****+++
0.0039	6.5	3.8	2.0	5.0	0.5	C252G392-20****+++
0.0047	6.5	3.9	2.2	5.0	0.5	C252G472-20****+++
0.0056	6.5	4.6	2.2	5.0	0.5	C252G562-20****+++
0.0068	6.5	4.6	2.5	5.0	0.5	C252G682-20****+++
0.0082	6.5	5.0	2.7	5.0	0.5	C252G822-20****+++
0.010	6.5	3.7	2.0	5.0	0.5	C252G103-20****+++
0.012	6.5	4.1	2.0	5.0	0.5	C252G123-20****+++
0.015	6.5	4.3	2.2	5.0	0.5	C252G153-20****+++
0.018	6.5	4.3	2.5	5.0	0.5	C252G183-20****+++
0.022	6.5	4.7	2.7	5.0	0.5	C252G223-20****+++
0.027	6.5	5.2	2.9	5.0	0.5	C252G273-20****+++
0.033	6.5	5.5	3.2	5.0	0.5	C252G333-20****+++
0.039	6.5	5.4	3.7	5.0	0.5	C252G393-20****+++
0.047	6.5	6.9	3.5	5.0	0.5	C252G473-20****+++
0.056	6.5	7.7	3.7	5.0	0.5	C252G563-20****+++
0.068	6.5	7.9	4.2	5.0	0.5	C252G683-20****+++
0.082	6.5	8.6	4.7	5.0	0.5	C252G823-20****+++
0.10	6.5	8.3	5.7	5.0	0.5	C252G104-20****+++
0.0010	9.0	3.7	2.0	7.5	0.5	C252G102-30****+++
0.0012	9.0	3.7	2.0	7.5	0.5	C252G122-30****+++
0.0015	9.0	4.0	2.2	7.5	0.5	C252G152-30****+++
0.0018	9.0	4.7	2.2	7.5	0.5	C252G182-30****+++
0.0022	9.0	3.7	2.2	7.5	0.5	C252G222-30****+++
0.0027	9.0	4.6	2.2	7.5	0.5	C252G272-30****+++
0.0033	9.0	3.8	2.2	7.5	0.5	C252G332-30****+++
0.0039	9.0	3.9	2.2	7.5	0.5	C252G392-30****+++
0.0047	9.0	4.7	2.2	7.5	0.5	C252G472-30****+++
0.0056	9.0	3.7	2.2	7.5	0.5	C252G562-30****+++
0.0068	9.0	4.5	2.2	7.5	0.5	C252G682-30****+++
0.0082	9.0	4.5	2.5	7.5	0.5	C252G822-30****+++
0.010	9.0	4.0	2.2	7.5	0.5	C252G103-30****+++
0.012	9.0	4.4	2.2	7.5	0.5	C252G123-30****+++
0.015	9.0	4.5	2.5	7.5	0.5	C252G153-30****+++
0.018	9.0	3.7	2.2	7.5	0.5	C252G183-30****+++
0.022	9.0	4.2	2.2	7.5	0.5	C252G223-30****+++
0.027	9.0	4.2	2.5	7.5	0.5	C252G273-30****+++

400Vdc (200Vac)						
C (μF)	W max	H max	T max	P	d	part number
0.033	9.0	4.6	2.7	7.5	0.5	C252G333-30****+++
0.039	9.0	5.4	2.7	7.5	0.5	C252G393-30****+++
0.047	9.0	6.1	2.8	7.5	0.5	C252G473-30****+++
0.056	9.0	6.1	3.2	7.5	0.5	C252G563-30****+++
0.068	9.0	6.1	3.7	7.5	0.5	C252G683-30****+++
0.082	9.0	6.3	4.2	7.5	0.5	C252G823-30****+++
0.10	9.0	7.2	4.4	7.5	0.5	C252G104-30****+++
0.12	9.0	7.1	5.2	7.5	0.5	C252G124-30****+++
0.15	9.0	7.9	5.7	7.5	0.5	C252G154-30****+++
0.010	11.5	3.9	2.2	10.0	0.5	C252G103-40****+++
0.012	11.5	4.4	2.2	10.0	0.5	C252G123-40****+++
0.015	11.5	4.5	2.5	10.0	0.5	C252G153-40****+++
0.018	11.5	4.8	2.7	10.0	0.5	C252G183-40****+++
0.022	11.5	4.6	2.5	10.0	0.5	C252G223-40****+++
0.027	11.5	5.6	2.5	10.0	0.5	C252G273-40****+++
0.033	11.5	4.3	2.2	10.0	0.5	C252G333-40****+++
0.039	11.5	4.2	2.5	10.0	0.5	C252G393-40****+++
0.047	11.5	4.5	2.7	10.0	0.5	C252G473-40****+++
0.056	11.5	5.4	2.7	10.0	0.5	C252G563-40****+++
0.068	11.5	5.2	3.2	10.0	0.5	C252G683-40****+++
0.082	11.5	6.2	3.2	10.0	0.5	C252G823-40****+++
0.10	11.5	6.2	3.7	10.0	0.5	C252G104-40****+++
0.12	11.5	6.4	4.2	10.0	0.5	C252G124-40****+++
0.15	11.5	6.9	4.7	10.0	0.5	C252G154-40****+++
0.18	11.5	7.5	5.2	10.0	0.5	C252G184-40****+++
0.22	11.5	8.2	5.7	10.0	0.5	C252G224-40****+++
0.047	16.5	4.1	2.4	15.0	0.6	C252G473-60****+++
0.056	16.5	4.0	2.7	15.0	0.6	C252G563-60****+++
0.068	16.5	4.3	2.9	15.0	0.6	C252G683-60****+++
0.082	16.5	4.5	3.2	15.0	0.6	C252G823-60****+++
0.10	16.5	5.5	3.2	15.0	0.6	C252G104-60****+++
0.12	16.5	5.3	3.7	15.0	0.6	C252G124-60****+++
0.15	16.5	6.2	3.9	15.0	0.6	C252G154-60****+++
0.18	16.5	6.7	4.2	15.0	0.6	C252G184-60****+++
0.22	16.5	7.1	4.7	15.0	0.6	C252G224-60****+++
0.27	16.5	7.6	5.5	15.0	0.6	C252G274-60****+++
0.33	16.5	8.5	5.9	15.0	0.6	C252G334-60****+++
0.39	16.5	9.4	6.2	15.0	0.6	C252G394-60****+++
0.47	16.5	9.8	7.0	15.0	0.6	C252G474-60****+++
0.56	16.5	10.7	7.5	15.0	0.6	C252G564-60****+++
0.68	16.5	11.2	8.5	15.0	0.6	C252G684-60****+++
0.82	16.5	12.6	9.0	15.0	0.6	C252G824-60****+++
1.0	16.5	13.6	10.2	15.0	0.6	C252G105-60****+++

- Note: 1. “-”=capacitance tolerance code, M=±20%,K=±10%,J=±5%
 2. “****”=lead form and packaging code (refer to table 1).

■ Dimensions (mm)

630Vdc(400Vac)						
C (μF)	W max	H max	T max	P	d	part number
0.0010	6.5	3.9	2.0	5.0	0.5	C252J102-20*****++
0.0012	6.5	4.0	2.2	5.0	0.5	C252J122-20*****++
0.0015	6.5	5.0	2.2	5.0	0.5	C252J152-20*****++
0.0018	6.5	4.9	2.5	5.0	0.5	C252J182-20*****++
0.0022	6.5	4.7	2.2	5.0	0.5	C252J222-20*****++
0.0027	6.5	4.7	2.5	5.0	0.5	C252J272-20*****++
0.0033	6.5	5.2	2.7	5.0	0.5	C252J332-20*****++
0.0039	6.5	5.5	2.9	5.0	0.5	C252J392-20*****++
0.0047	6.5	4.9	2.5	5.0	0.5	C252J472-20*****++
0.0056	6.5	5.2	2.7	5.0	0.5	C252J562-20*****++
0.0068	6.5	5.0	3.2	5.0	0.5	C252J682-20*****++
0.0082	6.5	5.4	3.5	5.0	0.5	C252J822-20*****++
0.010	6.5	5.7	3.9	5.0	0.5	C252J103-20*****++
0.012	6.5	7.3	3.7	5.0	0.5	C252J123-20*****++
0.0010	9.0	3.7	2.0	7.5	0.5	C252J102-30*****++
0.0012	9.0	3.7	2.0	7.5	0.5	C252J122-30*****++
0.0015	9.0	4.0	2.2	7.5	0.5	C252J152-30*****++
0.0018	9.0	4.7	2.2	7.5	0.5	C252J182-30*****++
0.0022	9.0	3.7	2.2	7.5	0.5	C252J222-30*****++
0.0027	9.0	4.0	2.4	7.5	0.5	C252J272-30*****++
0.0033	9.0	3.8	2.2	7.5	0.5	C252J332-30*****++
0.0039	9.0	3.9	2.2	7.5	0.5	C252J392-30*****++
0.0047	9.0	4.1	2.4	7.5	0.5	C252J472-30*****++
0.0056	9.0	4.6	2.5	7.5	0.5	C252J562-30*****++
0.0068	9.0	5.0	2.7	7.5	0.5	C252J682-30*****++
0.0082	9.0	6.1	2.7	7.5	0.5	C252J822-30*****++
0.010	9.0	5.9	3.2	7.5	0.5	C252J103-30*****++
0.012	9.0	5.8	3.7	7.5	0.5	C252J123-30*****++
0.015	9.0	6.2	4.2	7.5	0.5	C252J153-30*****++
0.018	9.0	7.4	4.2	7.5	0.5	C252J183-30*****++
0.022	9.0	7.9	4.7	7.5	0.5	C252J223-30*****++
0.027	9.0	7.8	5.7	7.5	0.5	C252J273-30*****++
0.033	9.0	9.5	5.7	7.5	0.5	C252J333-30*****++
0.039	9.0	10.2	6.3	7.5	0.5	C252J393-30*****++
0.047	9.0	11.2	6.8	7.5	0.5	C252J473-30*****++
0.10	16.5	9.2	5.0	15.0	0.6	C252J104-60*****++
0.12	16.5	9.8	5.8	15.0	0.6	C252J124-60*****++
0.15	16.5	11.2	6.2	15.0	0.6	C252J154-60*****++
0.18	16.5	11.2	7.2	15.0	0.6	C252J184-60*****++
0.22	16.5	12.6	7.7	15.0	0.6	C252J224-60*****++
0.27	16.5	14.3	8.2	15.0	0.6	C252J274-60*****++
0.33	16.5	14.4	9.9	15.0	0.6	C252J334-60*****++
0.39	16.5	15.2	10.9	15.0	0.6	C252J394-60*****++
0.47	16.5	17.5	11.3	15.0	0.6	C252J474-60*****++

1000Vdc(600Vac)						
C (μF)	W max	H max	T max	P	d	part number
0.0010	6.5	3.9	2.0	5.0	0.5	C253A102-20*****++
0.0012	6.5	4.0	2.2	5.0	0.5	C253A122-20*****++
0.0015	6.5	5.0	2.2	5.0	0.5	C253A152-20*****++
0.0018	6.5	4.9	2.5	5.0	0.5	C253A182-20*****++
0.0022	6.5	4.7	2.2	5.0	0.5	C253A222-20*****++
0.0027	6.5	4.7	2.5	5.0	0.5	C253A272-20*****++
0.0033	6.5	5.2	2.7	5.0	0.5	C253A332-20*****++
0.0039	6.5	5.5	2.9	5.0	0.5	C253A392-20*****++
0.0047	6.5	5.8	3.2	5.0	0.5	C253A472-20*****++
0.0056	6.5	5.8	3.7	5.0	0.5	C253A562-20*****++
0.0068	6.5	8.4	3.2	5.0	0.5	C253A682-20*****++
0.0082	6.5	8.4	3.7	5.0	0.5	C253A822-20*****++
0.010	6.5	8.8	4.2	5.0	0.5	C253A103-20*****++
0.0010	9.0	3.7	2.0	7.5	0.5	C253A102-30*****++
0.0012	9.0	3.7	2.0	7.5	0.5	C253A122-30*****++
0.0015	9.0	4.0	2.2	7.5	0.5	C253A152-30*****++
0.0018	9.0	4.7	2.2	7.5	0.5	C253A182-30*****++
0.0022	9.0	3.7	2.2	7.5	0.5	C253A222-30*****++
0.0027	9.0	4.6	2.2	7.5	0.5	C253A272-30*****++
0.0033	9.0	4.6	2.5	7.5	0.5	C253A332-30*****++
0.0039	9.0	4.9	2.7	7.5	0.5	C253A392-30*****++
0.0047	9.0	5.8	2.7	7.5	0.5	C253A472-30*****++
0.0056	9.0	5.5	3.2	7.5	0.5	C253A562-30*****++
0.0068	9.0	6.7	3.2	7.5	0.5	C253A682-30*****++
0.0082	9.0	6.7	3.7	7.5	0.5	C253A822-30*****++
0.010	9.0	7.0	4.2	7.5	0.5	C253A103-30*****++
0.012	9.0	7.3	4.7	7.5	0.5	C253A123-30*****++
0.015	9.0	8.1	5.2	7.5	0.5	C253A153-30*****++
0.018	9.0	9.7	5.2	7.5	0.5	C253A183-30*****++
0.022	9.0	10.6	5.7	7.5	0.5	C253A223-30*****++
0.027	9.0	11.8	6.3	7.5	0.5	C253A273-30*****++
0.033	9.0	13.2	6.8	7.5	0.5	C253A333-30*****++

- Note: 1. “-”=capacitance tolerance code, M=±20%,K=±10%,J=±5%
 2. “*****”=lead form and packaging code (refer to table 1).

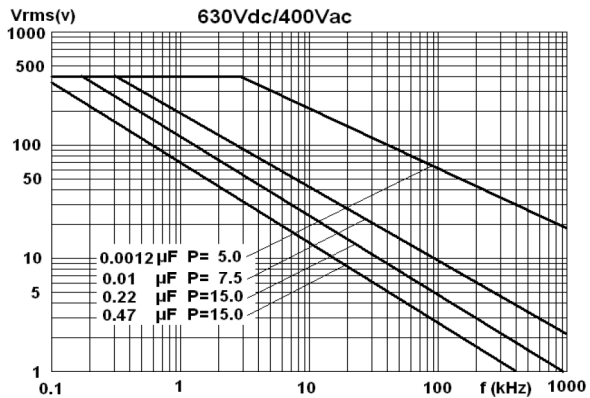
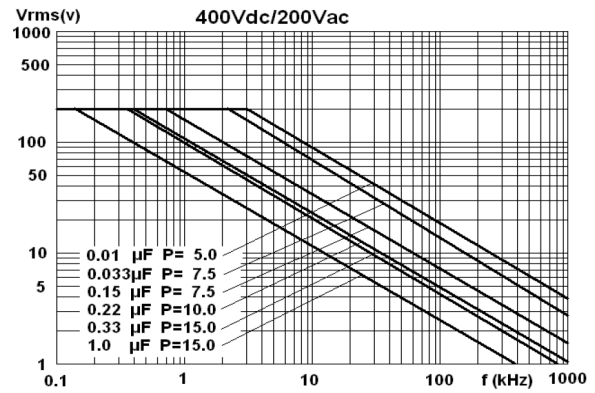
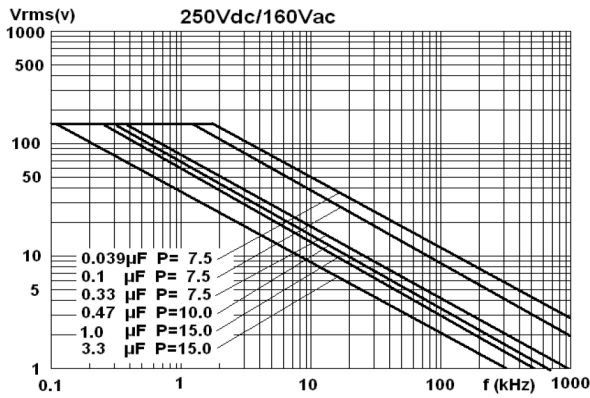
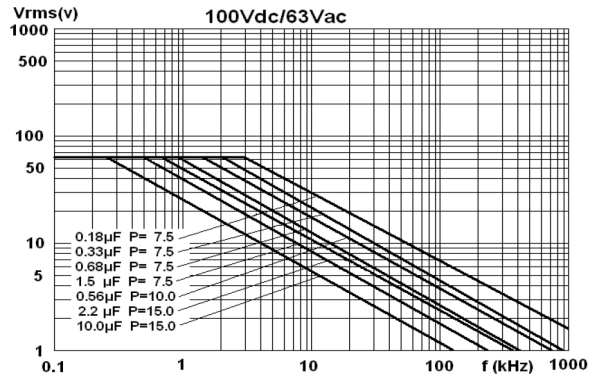
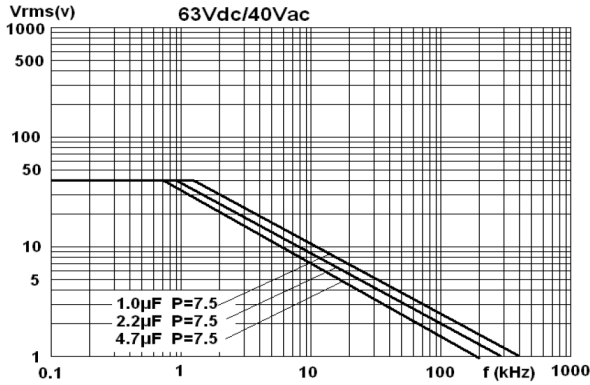
■ **Maximum permissible voltage change per unit of time**

Rated Voltage (V)	Max dV/dt(V/us)			
	P=5mm	P=7.5mm	P=10mm	P=15mm
63	120	120	/	/
100	150	150	75	50
250	250	200	150	100
400	300	275	175	125
630	400	320	/	150
1000	600	400	/	/

Note:

1. Rated voltage pulse slope $(dV/dt)_R$ at rated voltage.
2. 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 .

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

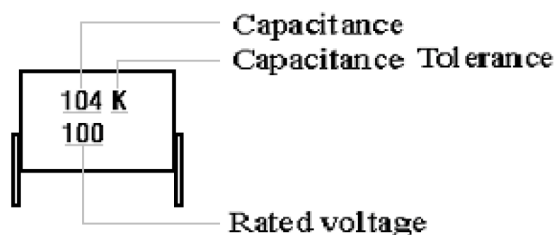


Note: sinusoidal wave-form、 environment temperature $\leq 85^{\circ}\text{C}$, internal temperature rise $\Delta T=15^{\circ}\text{C}$, p (pitch) in mm..

■ Test Method And Performance

No.	Item	Performance	Test method (GB 7332(IEC 60384-2))
1	Solderability	Good quality of tinning	Solder temperature:245°C±5°C Immersion time: 2.0s±0.5s
2	Initial measurement	Capacitance, Tgδ	
	Terminal strength	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, legible marking	Solder temperature:260°C±5°C Immersion time: 10s±1s
	Final measurement	ΔC/C ≤±2%(relative to the initial value) Increase of tgδ: ≤0.003 (C≤1.0μF) ≤0.002 (C>1.0μF)	
3	Initial measurement	Capacitance, Tgδ	
	Rapid change of temperature	There shall be no evidence of deterioration.	θ _A =-55°C, θ _B =+125°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 (C≤1.0μF) ≤0.002 (C>1.0μF) IR: ≥ 50% of the rated value	
4	climate sequence	Initial measurement	Capacitance, Tgδ
		Dry heat	+125°C, 16h
		Damp heat, Cyclic	Test Db, Severity: b, the first cycle
		Cold	-55°C, 2h
		Low air pressure	There shall be no permanent breakdown, flashover or other harmful deformation when applying U _R at the last 1 minute. 15°C~ 35°C, 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 (GB 7332(IEC 60384-2))
4	climate sequence (continue)	Final measurement	There shall be no evidence of deterioration and the marking shall be legible. $\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.005 ($C \leq 1.0\mu\text{F}$) ≤ 0.003 ($C > 1.0\mu\text{F}$) IR: $\geq 50\%$ of the rated value	
5	Damp heat steady state		There shall be no evidence of deterioration and the marking shall be legible. $\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta \leq 0.005$ IR: $\geq 50\%$ of the rated value	Temperature: $40^\circ\text{C} \pm 2^\circ\text{C}$ Humidity: $93 \pm \frac{2}{3} \% \text{RH}$ Duration: 56 days
6	Endurance		There shall be no evidence of deterioration and the marking shall be legible. $\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta$: $C \leq 1.0\mu\text{F}, \leq 0.003$; $C > 1.0\mu\text{F}, \leq 0.002$ IR: $\geq 50\%$ of the rated value	$+85^\circ\text{C}, 1.25 \times U_R$ 2 000h $+100^\circ\text{C}, 1.25 \times U_c$ ($U_c = 0.8U_R$) 2 000h $+125^\circ\text{C}: 0.5 \times U_R$ 1 000h
7	Temperature characteristic		Measuring capacitance at test point b, d, f: Characteristic at lower category temperature -55°C : $-10\% \leq (C_b - C_d) / C_d \leq 0\%$ Characteristic at upper category temperature $+105^\circ\text{C}$: $0\% \leq (C_f - C_d) / C_d \leq +10\%$ I.R. (test at point f): $U_R \leq 100\text{V}: \geq 75 \text{ M}\Omega$ ($C \leq 0.33\mu\text{F}$) $\geq 25\text{s}$ ($C > 0.33\mu\text{F}$) $U_R > 100\text{V}: \geq 150 \text{ M}\Omega$ ($C \leq 0.33\mu\text{F}$) $\geq 50\text{s}$ ($C > 0.33\mu\text{F}$)	Static method: The Capacitors should be kept at the following temperature in turn: a(20 ± 2) $^\circ\text{C}$, b(-55 ± 3) $^\circ\text{C}$, d(20 ± 2) $^\circ\text{C}$, f(105 ± 2) $^\circ\text{C}$, g(20 ± 2) $^\circ\text{C}$
8	Charging and discharging		$\Delta C/C \leq \pm 5\%$ (relative to the initial value) Increase of $\text{tg}\delta$: ≤ 0.003 ($C \leq 1.0\mu\text{F}$) ≤ 0.002 ($C > 1.0\mu\text{F}$) IR: $\geq 50\%$ of the rated value	Ref.item 4.13 Times: 10 000 Duration of charging: 0.5s Duration of discharging: 0.5s Charging voltage: rated voltage Charging resistance: $220/C_R$ (Ω) or current intensity $\leq 1\text{A}$ (whichever is the less current intensity) Discharging resistance: $R = U_R / (10 \times C_R \times dU/dt)$ C_R : rated capacitance (μF)

■ Marking

■ Taping specification

1. **Taping Dimensions:** Refer to table 2
2. **Outline Drawing:** Refer to Fig 1 ~ Fig 3

Table 2 Taping Dimensions

Unit: mm

Specification	Code	Dimensions				Note
		P=7.5		P=10.0	Tolerance	
Code of Ammo Tapped		A301	A211	A402		Digit 12 to 15 of P/N
Taping type	—	Fig 1	Fig 2	Fig3	—	—
Lead dia.	d	0.5		0.5	±0.05	—
Taping pitch	P3	12.7		12.7	±1.0	—
Feed hole pitch	P0	12.7		12.7	±0.3	1mm(max)/20×P 0
Center of wire	P1	2.6	3.85	7.7	±0.7	—
Center of body	P2	6.35		12.7	±1.3	—
Pitch	P	7.5		10.0		
Component alignment	△S	0		0	±2.0	—
Pitch of taping wire	F	/	5.0	/	+0.6 -0.1	—
Height of component from tape center	H0	/	16.0	/	±0.5	—
Height of crangle from tape center	H	18.5	20.0	18.5	±0.5	
Carrier tape width	W	18.0		18.0	+1.0 -0.5	—
Hold down tape width	W0	13.0		13.0	—	—
Hole position	W1	9.0		9.0	±0.5	—
Hold down tape sition	W2	3.0max			—	—
Feed hole dia.	D0	4.0		4.0	±0.2	—
Tape thickness	t	0.7		0.7	±0.2	—

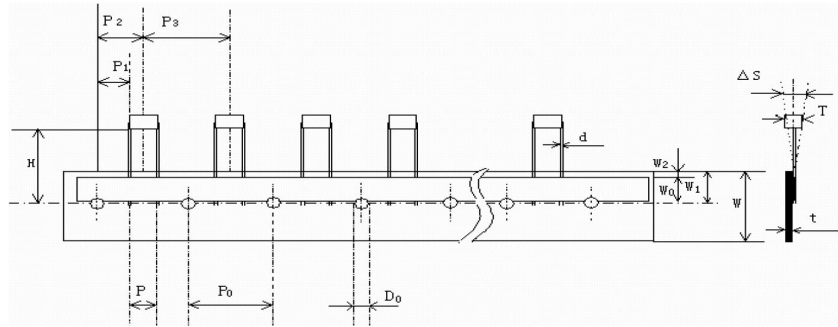


Fig 1

Specification	P=7.5mm
Code of Ammo	A301
Feed hole pitch P0 (mm)	12.7
Pitch of taping wire F(mm)	/
Height of crangle from tape center H(mm)	18.5

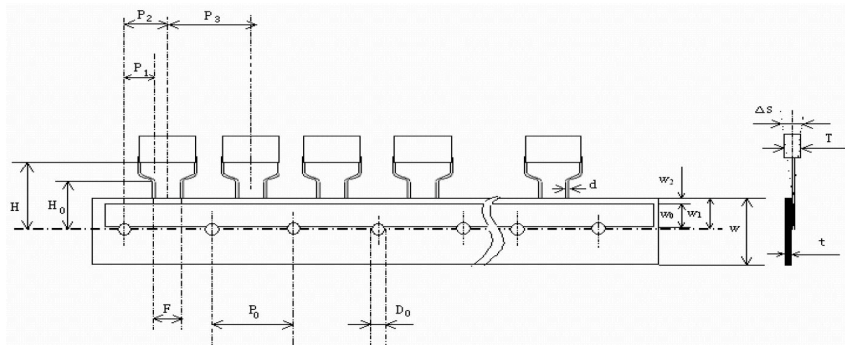


Fig 2

Specification	P=7.5mm
Code of Ammo	A211
Feed hole pitch P0 (mm)	12.7
Pitch of taping wire F(mm)	5.0
Height of crangle from tape center H(mm)	20

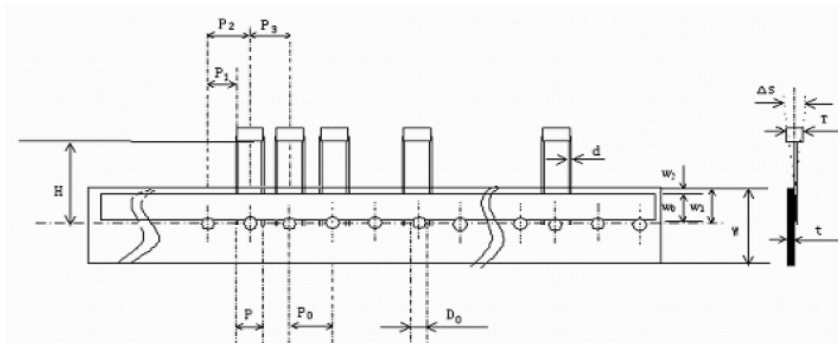
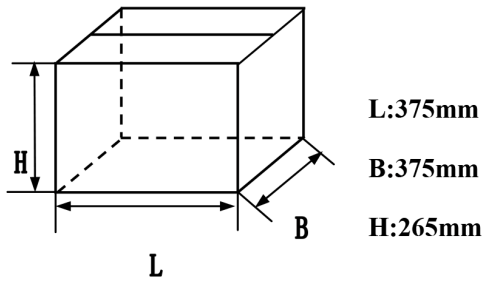


Fig3

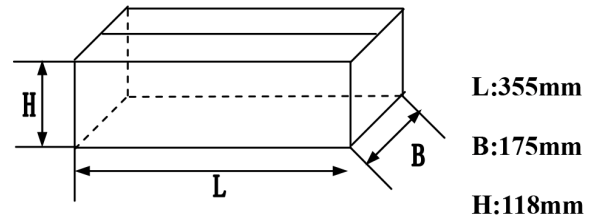
Specification	P=10.0mm
Code of Ammo	A402
Feed hole pitch P0 (mm)	12.7
Pitch of taping wire F(mm)	/
Height of crangle from tape center H(mm)	18.5

■ Packing box sizes

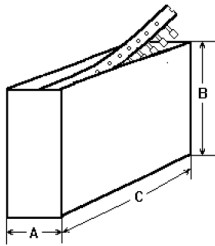
1. Out packing box for bulk



2. Inner packing box for bulk



3. Box sizes for Ammo-pack



A=48±3; B=260±3; C=330±3