

**WEIDY**<sup>®</sup>

NO.

APS-1607-006

Version

A/0

Date

2016.7.16

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**Metallized Polypropylene Film Capacitor(dipped)**

## Datasheet for film capacitor W36

**Customer**

WEIDY PART NO

Product specification

CUSTOMER'S PART NO.

W362J104JM8L00A00Q

CBB22-630V-104J-P15

**Seller**

Approval



Date

7/18/2022

Ratify

Tao Wentao

Audit

Chen Haiyong

Maker

Li Huayan

**Buyer**

Approval

Date

Ratify

Title

Remark

Pls send copy to us after approval

### Company information

**Company name:** Shenzhen Weidy Industrial Development Co.,Ltd**Company address:** 5/F, New Asia Electronic Town, Zhenzhong Rd, Futian, Shenzhen, Guangdong, China.**TEL:** +86-755-82811688**FAX:** +86755-82812688<http://www.weidy.net>

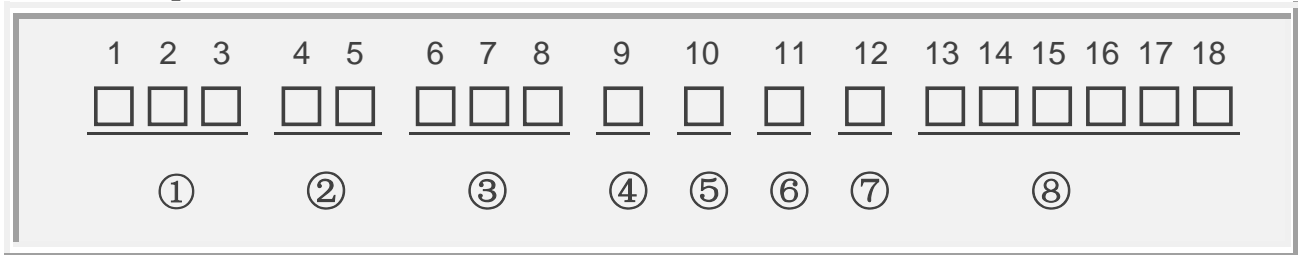






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✧ **Part number system**  
For example:



① **Series code(Digit 1 to 3)**

Series	CH11	CL11	CBB11	CBB13	CBB81	CBB81B	WDQB	WDQC	PSR	CL20T	CL21	WDQV
Code	W10	W11	W12	W13	W14	W15	W16	W17	W18	W20	W21	W22
Series	CL21B	CL23B	CL25	CL20A	CBB20T	CBB21	CBB21B	CBB20A	MKP25	CBB22	MKPRS	MKPE(X2(E))
Code	W23	W24	W25	W26	W30	W31	W32	W33	W38	W36	W40	W41
Series	MKP(X2)	MKP63(Y2)	MKP64(X1)	MKP65(X1/440V)	MKP66(X1/760V)	CL21B(E)	CBB21B(E)	CBB21(E)	CLN51	CBS52	CBB60	CBB61
Code	W42	W43	W44	W45	W46	W47	W48	W49	W51	W52	W60	W61
Series	CBB65	CBB71	CBB72	MMKP82	MMKP84	CLN21	C92	CBB13B	CBB62	RCP	CBB28	CL21(E)
Code	W65	W71	W72	W82	W84	W91	W92	W19	W62	W39	W28	W50
Series	CBB22(E)	X1Y2	CL21S	CBB21S	MKP23	MKPR						
Code	W53	W54	W27	W37	W29	W63						

② **Rated Voltage(Digit 4-5)** (Remark: number and then letter indicate DC, letter and then number indicate AC)

	A	B	C	D	E	F	G	H	J	K	L	M	N
1			16V	20V	25V			50V	63V	80V			
2	100V	125V	160V	200V	250V		400V	500V	630V	800V		120V	
3	1000V	1250V	1600V	2000V	2500V	3000V	4000V					1200V	
	P	Q	R	S	T	U	V	W	X	Y			
1	240V	300V	330V	440V	540V	600V							
2	275V	305V	350V	450V	550V								

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3	280V	310V											
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### ③ Rated capacitance value(Digit 6 to 8)

According to JIS

101=10x10<sup>1</sup>pF=0.1nF      102=10x10<sup>2</sup>pF=1.0nF= 0.001uF    103=10x10<sup>3</sup>pF=10nF=0.01uF  
 104=10x10<sup>4</sup>pF=100nF=0.1uF    105=10x10<sup>5</sup>pF=1000nF=1uF    106=10x10<sup>6</sup>pF=10000nF=10uF  
 107=100uF    108=1000uF    109=10000uF

### ④ Capacitance tolerance (Digit 9)

Tolerance	± 1%	± 2%	± 3%	± 5%	±10%	±15%	± 20%	0~+10%	0~-10%		
Code	F	G	H	J	K	L	M	T	P		

### ⑤ Pitch/ Length of Axial products (Digit 10)

Pitch	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	10.0	12.5	15.0	20.0
Code	A	B	C	D	E	F	G	H	J	K	L	M	N
Pitch	22.0	22.5	25.0	27.0	27.5	30.0	31.0	32	37	26	8		
Code	P	Q	R	S	T	U	V	W	X	Y	1		
Pitch	15	19	21	27	32	37	42	46	24	50	56		
Code	1	2	3	4	5	6	7	8	9	A	B		

\*When the products are axial products, it stands for the length of the products

### ⑥ Lead (Digit 11)

Lead	CP 0.5	CP 0.6	CP 0.7	CP 0.8	CU 1.0	CU 0.8	CU 0.7	CU 1.2	CP 1.0		
code	5	6	7	8	1	9	4	A	C		

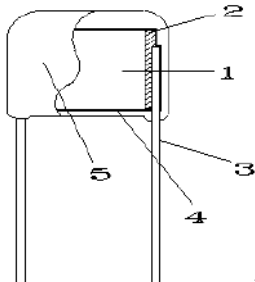
### ⑦ Package type and code of Lead Configuration(12)

Code	Remarks
S	Straight leads, lead Cut (L≤8mm)
M	Straight leads, lead Cut (20mm>L>8mm)
L	Straight leads, lead Cut (L≥20mm)
W	Leads bent into 90 Degree
K	Forming lead(tolerance of lead length±0.5mm)
Y	Forming lead(tolerance of lead length±0.3mm)
T	Taping packing

### ⑧ Internal use ( Digit 13 ~ 18)

## Metallized Polypropylene Film Capacitor(dipped)

### ◇ Features

Product name	<b>Metallized Polypropylene Film Capacitor (dipped)</b>																								
Reference Standard	GB/T 2693 (IEC 60384-1) GB/T14579 (IEC 60384-17)																								
Construction	 <ul style="list-style-type: none"><li>1. Metallized Polypropylene Film</li><li>2. Metal spray</li><li>3. Pin wire</li><li>4. Internal epoxy resin</li><li>5. Flame retardant Epoxy resin coating(UL94V-0)</li></ul>																								
Atmospheric conditions IEC 68-1	Standard atmospheric conditions (IEC 68-1-5.3) Base condition (IEC 68-1-5.1) Temperature : 15°C ~ 35°C Temperature: 20°C Humidity: 25% ~ 75% Atmospheric pressure: 101.3KPa Atmospheric pressure: 86KPa ~ 106KPa																								
Technology Specifications	Climatic category: <b>40/85/21</b> upper temperature: 105°C Operating Temperature Range: -40°C ~ 105°C (+85°C to 105°C: decreasing factor 1.25% per °C for V <sub>R</sub> (dc)) Rated Voltage: 100V、250V、400V/450V、630V Capacitance Range: 0.001µF ~ 4.0µF Capacitance Tolerance: ±5% (J) ; ±10% (K) Voltage Proof: 1.6U <sub>R</sub> (5s) Voltage Applied Speed: 100V/S; Cut off current: 5mA Dissipation Factor: ≤0.1% (20°C, 1KHz) Insulation Resistance: ≥50000MΩ ; C <sub>R</sub> ≤0.33µF ≥15000S; C <sub>R</sub> > 0.33µF (20°C, 100V, 1min)																								
Terminal Strength IEC 68-2-21	<table border="1"><thead><tr><th>Tension</th><th>Dia. (mm)</th><th>Tension</th><th>Bend</th><th>Dia. (mm)</th><th>Load</th></tr></thead><tbody><tr><td></td><td>0.3 &lt; d ≤ 0.5</td><td>5N</td><td></td><td>0.3 &lt; d ≤ 0.5</td><td>2.5N</td></tr><tr><td></td><td>0.5 &lt; d ≤ 0.8</td><td>10N</td><td></td><td>0.5 &lt; d ≤ 0.8</td><td>5N</td></tr><tr><td></td><td>0.8 &lt; d ≤ 1.25</td><td>20N</td><td></td><td>0.8 &lt; d ≤ 1.25</td><td>10N</td></tr></tbody></table> <p>Time duration: 10±1second After above test, no visible damage.</p>	Tension	Dia. (mm)	Tension	Bend	Dia. (mm)	Load		0.3 < d ≤ 0.5	5N		0.3 < d ≤ 0.5	2.5N		0.5 < d ≤ 0.8	10N		0.5 < d ≤ 0.8	5N		0.8 < d ≤ 1.25	20N		0.8 < d ≤ 1.25	10N
Tension	Dia. (mm)	Tension	Bend	Dia. (mm)	Load																				
	0.3 < d ≤ 0.5	5N		0.3 < d ≤ 0.5	2.5N																				
	0.5 < d ≤ 0.8	10N		0.5 < d ≤ 0.8	5N																				
	0.8 < d ≤ 1.25	20N		0.8 < d ≤ 1.25	10N																				

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Solder ability IEC 68-2-20	Soldering temperature: 235°C±5°C Immersion duration: 2.0s±0.5s Good Tinning		
Soldering heat IEC 68-2-20	Soldering temperature: 260°C±5°C Immersion duration: 10s±1s Dip depth from the mounting surface 2+0/-0.5mm, using the thickness of 1.5mm ±0.5mm insulation shielding plate Capacitance change: $\Delta C/C : \leq \pm(2\%+2PF)$ of the value before test. DF change $\tan\delta : \leq$ rated value at 1 KHZ .		
Temperature Cycling IEC 68-2-14	Temperature : $\theta A = -40^{\circ}C$ ; $\theta B = +105^{\circ}C$ Time duration: 30min ; Cycle times: 5 times ; Capacitance change: $\Delta C/C : \leq \pm 3\%$ DF change: $\tan\delta : \Delta \tan \delta : \leq 0.2\%$ at 1 KHZ . Insulation resistance: $\geq 50\%$ of the first testing value		
Vibration IEC 68-2-6	Frequency: 10 ~ 500Hz Direction and Duration: Per direction 2hrs, Total 6hrs; Amplitude 0.75mm or acceleration 98m/s <sup>2</sup> (Taking the severity of lower) No visible damage and deterioration in appearance		
Bump IEC 68-2-29	Bump times: 4000 times Acceleration: 390m/s <sup>2</sup> Pulse duration: 6ms No visible damage and deterioration in appearance		
Climatic Sequence	Dry heat IEC 68-2-2	Temperature: +105°C Duration: 16h	Final measurement No breakdown or flashover; No visible damage and deterioration in appearance and the marking shall be legible Capacitance change : $\Delta C/C : \leq \pm(2\%+2PF)$ DF change : $\tan\delta : \leq$ Rated value or 1.4 times of the value before test at 1 KHZ . Insulation Resistance : $\geq 50\%$ of the value before test
	Damp heat cycle	Test Db,Severity b, the first cycle	
	Cold IEC 68-2-1	Temperature: -40°C duration: 2h	
	Low Air pressure IEC 68-2-13	Temperature: 15°C—35°C Pressure: 8.5KPa Duration: 1h apply UR at the last 1 minute.	
	Damp heat cycle IEC 68-2-30	Test Db,Severity b,the other cycles, apply UR for 1minute after the test finished.	

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## Metallized Polypropylene Film Capacitor(dipped)

Damp Heat Test  
IEC 68-2-3

Temperature:  $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$

Humidity:  $93 \pm 2/-3 \%$

Duration: 21 days

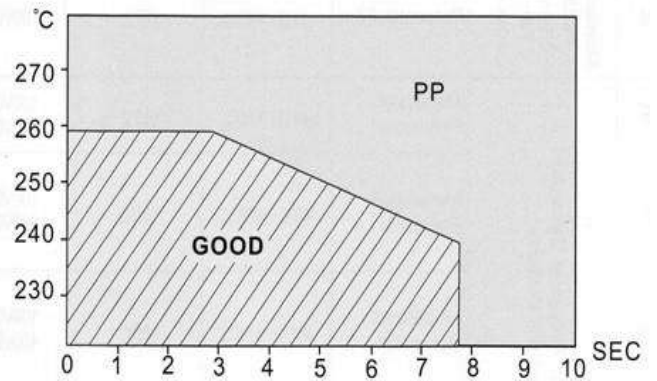
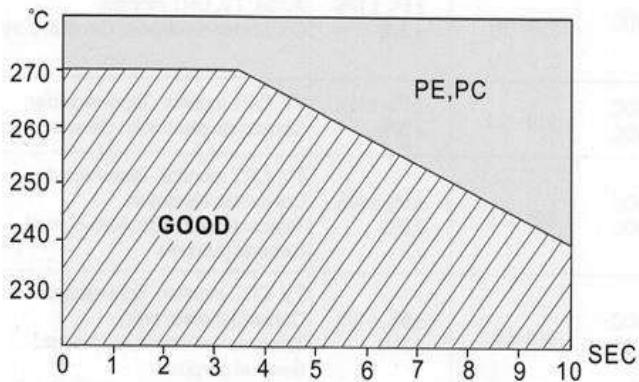
No visible damage and deterioration in appearance and the marking shall be legible

Capacitance change:  $\Delta C/C : \leq \pm 5\%$

DF Change:  $\Delta \tan \delta : \leq 0.2\%$  at 1 KHZ .

Insulation Resistance:  $\geq 50\%$  of the value before test

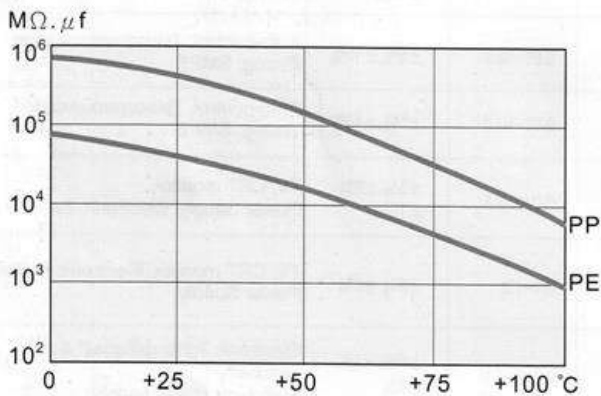
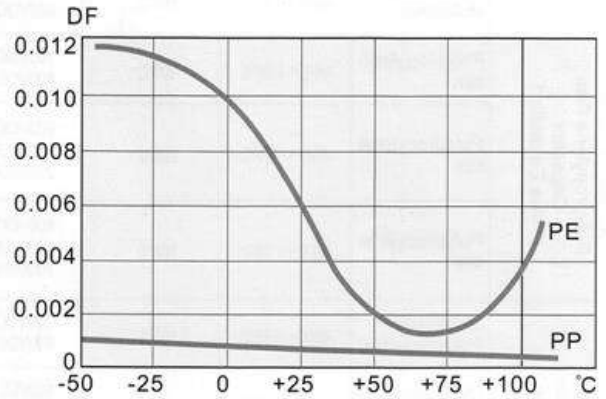
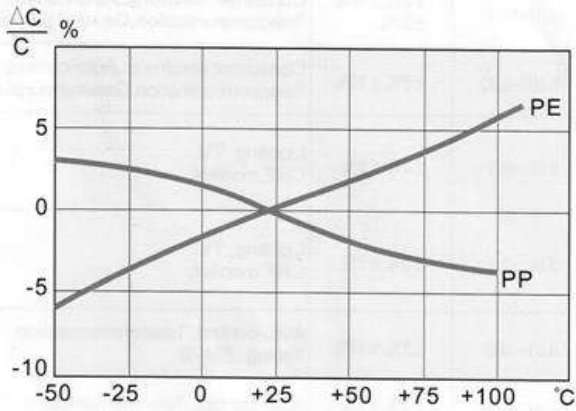
### ◇ Soldering Temperature VS Time





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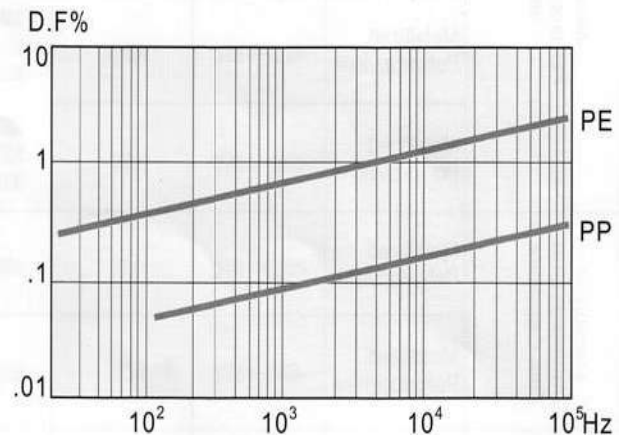
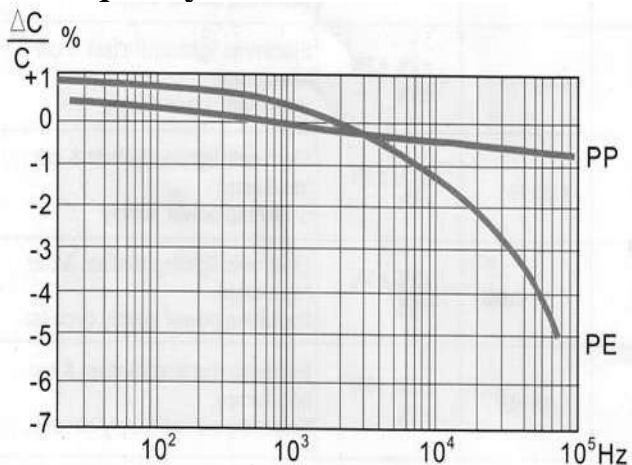
## ◇ Temperature Characteristics



PP: 聚丙烯薄膜 (Polypropylene Film)

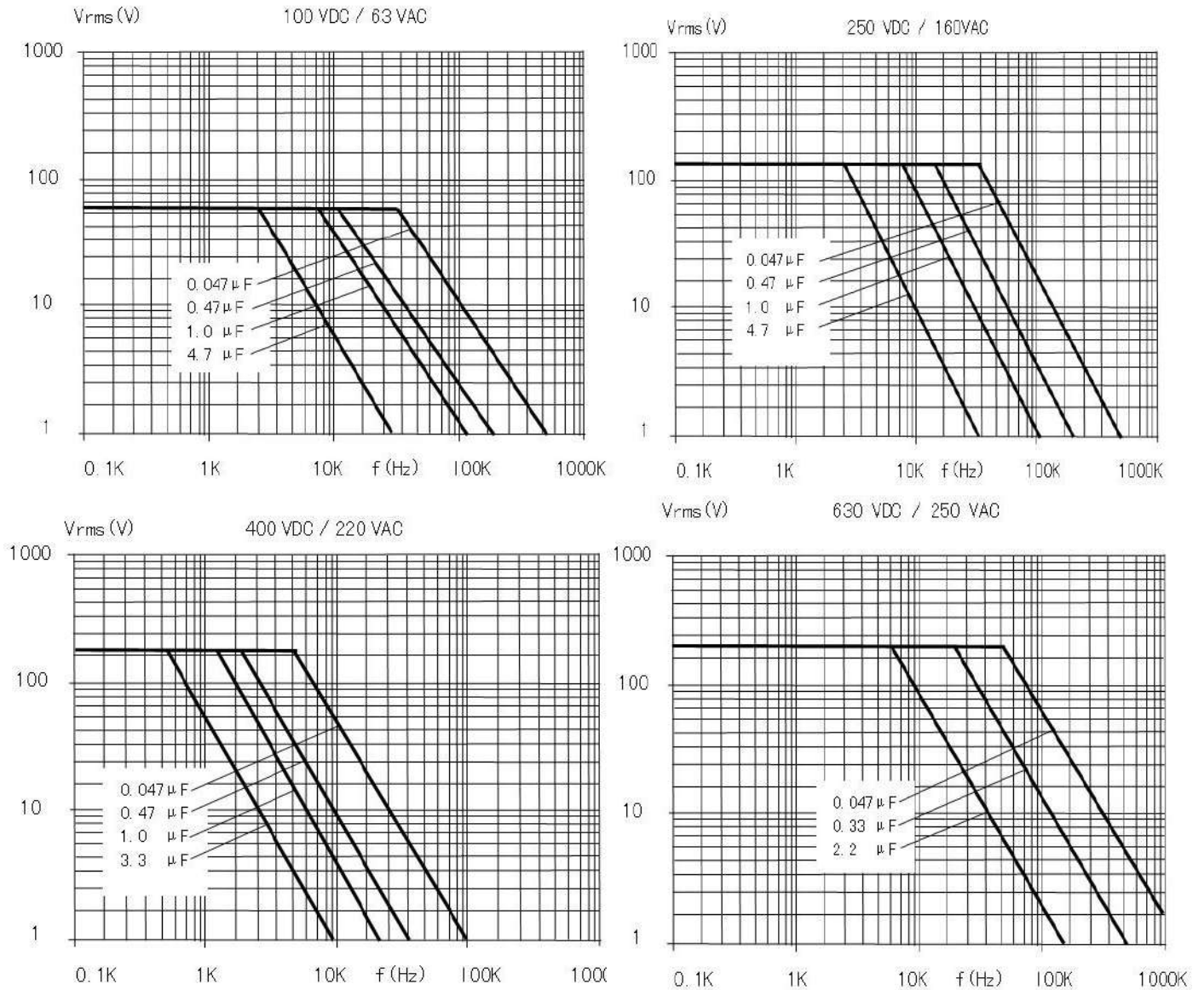
PE: 聚酯薄膜 (Polyester Film)

## ◇ Frequency Characteristics



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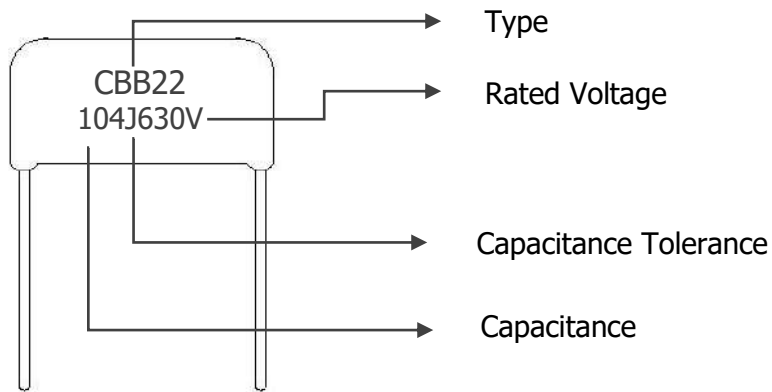
## ✧ Permissible AC Voltage VS Frequency Curve



Remark: Sine wave, Environmental temperature  $\leq 85^{\circ}\text{C}$

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### ◇ Marking Specification



### ◇ Taping Drawing&Dimensions

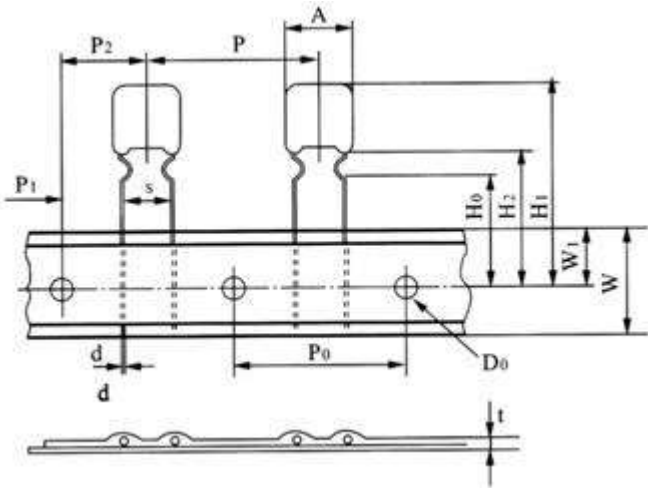


Fig.1

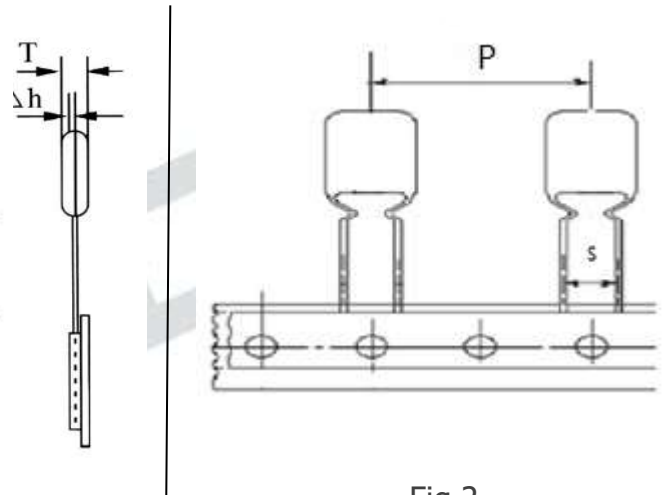
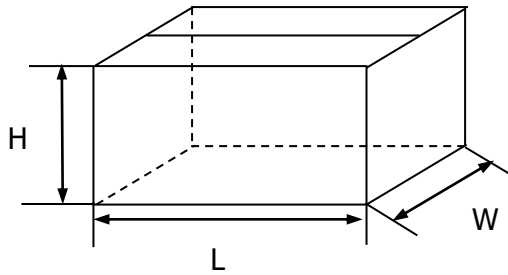


Fig.2

Technique Data	Code	Size (mm)					Technique Data	Code	Size (mm)				
		P=5	P=7.5	P=10	P=15	Tolerance			P=5	P=7.5	P=10	P=15	Tolerance
Taping Type		Fig 1	Fig1	Fig2	Fig2		Taping Type		Fig1	Fig1	Fig2	Fig2	
Section distance	P	12.7	12.7	25.4	25.4	±1.0	Section distance	W	18.0	18.0	18.0	18.0	±0.5
Distance between two hole	P0	12.7	12.7	12.7	12.7	±0.3	Distance between two hole	W1	9.0	9.0	9.0	9.0	±0.5
Leads position	P1	3.8 5	2.6	7.7	5.2	±0.7	Leads position	H0	16	16	16	16	±0.5
Pitch for forming type	S	5.0	7.5	10.0	15.0	±0.5	Pitch for forming type	H1	39	39	39	39	max
Body position	P2	6.3 5	6.35	12.7	12.7	±1.3	Dia. Of the hole	D0	4.0	4.0	4.0	4.0	±0.3
Product Inclination	Δh	0	0	0	0	±0.2	Tape thickness	t	0.7	0.7	0.7	0.7	±0.2

## ◇ Carton Size

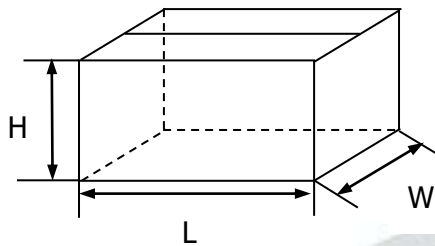


### **Out packaging box for bulk**

L: 480mm

W: 320mm

H: 280mm

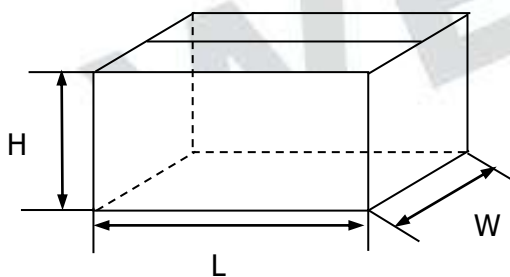


### **Inner packing box for bulk**

L: 280mm

W: 225mm

H: 120mm

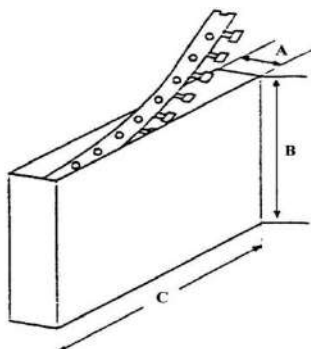


### **Out packaging box for taping**

L: 640mm

W: 360mm

H: 290mm



### **Inner packing box for taping**

A: 50mm

B: 320mm

C: 330mm