

WEIDY®

东莞市纬迪实业有限公司

No.

APS-1608-002

Version

A/1

Date

2016-8-02

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Metalized Polyester Film Capacitor (Mini Dipped)

Datasheet for film capacitor W22

Customer

WEIDY PART NO	Product specification	CUSTOMER'S PART NO.
W222A104JD5L00A00A	WDQV-104J-P5	
W222A224JD5L00A00A	WDQV-224J-P5	
W222A474JD5L00A00A	WDQV-474J-P5	

Seller

Approval	
Date	10/31/2020
Ratify	Tao Wentao
Audit	Chen Haiyong
Maker	Wen Xin

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:0755-82811688 FAX: 0755-82812688 <http://www.weidy.net>
Factory Address : No8,Songyin Rd., Pingshan Community, Tangxia

[illegible]

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Metalized Polyester Film Capacitor (Mini Dipped)✧ **Part number system**

For example:

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

① **Series code(Digit 1 to 3)**

型号	CH11	CL11	CBB11	CBB13	CBB81	CBB81B	WDQB	WDQC	PSR	CL20T	CL21	CL21X
代码	W10	W11	W12	W13	W14	W15	W16	W17	W18	W20	W21	W22
型号	CL21B	CL23B	CL25	CL20A	CBB20T	CBB21	CBB21B	CBB20A	MKP25	CBB22	MKPRS	MKPE(X2(E))
代码	W23	W24	W25	W26	W30	W31	W32	W33	W38	W36	W40	W41
型号	MKP(X2)	MKP63(Y2)	MKP64(X1)	MKP65(X1/440V)	MKP66(X1/760V)	CL21B(E)	CBB21B(E)	CBB21(E)	CLN51	CBS52	CBB60	CBB61
代码	W42	W43	W44	W45	W46	W47	W48	W49	W51	W52	W60	W61
型号	CBB65	CBB71	CBB72	MMKP82	MMKP84	CLN21	C92	CBB13B	CBB62	RCP	CBB28	CL21(E)
代码	W65	W71	W72	W82	W84	W91	W92	W19	W62	W39	W28	W50
型号	CBB22(E)	X1Y2	CL21S	CBB21S	MKP23	MKPR						
代码	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	230V	120V	150V
3	1000V	1250V	1600V	2000V	2500V	3000V	4000V			850V		1200V	1500V
	P	Q	R	S	T	U	V	W	X	Y			
1	240V	300V	330V	440V	540V	600V	700V	1100V	900V				
2	275V	305V	350V	450V	550V	690V	760V	1300V					
3	280V	310V		480V	520V			1700V					

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Metalized Polyester Film Capacitor (Mini Dipped)**③ Rated capacitance value(Digit 6 to 8)**

按 JIS 标准

101=10x10¹ pF=0.1nF102=10x10² pF=1.0nF= 0.001uF103=10x10³ pF=10nF=0.01uF104=10x10⁴ pF=100nF=0.1uF105=10x10⁵ pF=1000nF=1uF106=10x10⁶ pF=10000nF=10Uf

107 =100uF 108 =1000uF

109 =10000uF

④ Capacitance tolerance (Digit 9)

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

⑤ Pitch/ Length of Axial products (Digit 10)

脚距	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
代码	A	B	C	D	E	F	G	H	J	K	L	M	N
脚距	22.0	22.5	25.0	27.0	27.5	30.0	31.0	32	37	26	8		
代码	P	Q	R	S	T	U	V	W	X	Y	1		
长度	15	19	21	27	32	37	42	46	24	50	56		
代码	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)

引线	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	
代码	5	6	7	8	1	9	4	A	C	

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

Code	Remarks
S	Straight leads, lead Cut ($L \leq 8\text{mm}$)
M	Straight leads, lead Cut ($20\text{mm} > L > 8\text{mm}$)
L	Straight leads, lead Cut ($L \geq 20\text{mm}$)
W	Leads bent into 90 Degree
K	Forming lead(tolerance of lead length $\pm 0.5\text{mm}$)
Y	Forming lead(tolerance of lead length $\pm 0.3\text{mm}$)
T	Taping packing

⑧ Internal use (Digit 13 ~ 18)

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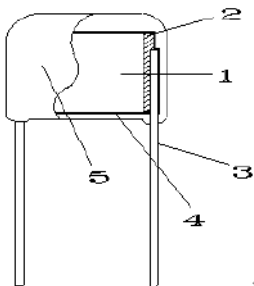
Date

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Metalized Polyester Film Capacitor (Mini Dipped)✧ **Features**

Product name	Metalized Polyester Film Capacitor (Mini Dipped)				
Reference Standard	GB/T 2693 (IEC 60384-1) GB/T 7332 (IEC 60384-2)				
Construction	 1. Metallized polyester film 2. Metal spray 3. Pin wire 4. Internal epoxy resin 5. Flame retardant Epoxy resin coating(UL94V-0)				
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 Specification s	Climatic category : 55/105/21 Rated temperature : 85°C Operating Temperature Range : -55°C ~ 105°C (+85°C to 105°C: decreasing factor 1.25% per °C for V_R (dc)) Rated Voltage : 63V、100V、250V、400V Capacitance Range : 0.001μF~10.0μF Capacitance Tolerance : ±5% (J) ; ±10% (K) Voltage Proof : 1.4 U_R (5s) Voltage applied acceleration : 100V/S ; Cut off current : 5mA Dissipation Factor : ≤1.0% (20°C , 1KHz) Insulation Resistance : $U_R \leq 100V$ $\geq 15000M\Omega$; $C_R \leq 0.33\mu F$ $\geq 5000S$; $C_R > 0.33\mu F$ (20°C , 10V,1min) $U_R > 100V$ $\geq 15000M\Omega$; $C_R \leq 0.33\mu F$ $\geq 5000S$; $C_R > 0.33\mu F$ (20°C , 100V,1min)				
Terminal Strength IEC 68-2-21	Tension	Dia. (mm)	Tension	Bend	Load
		0.3 < d ≤ 0.5	5N		2.5N
		0.5 < d ≤ 0.8	10N		5N
		0.8 < d ≤ 1.25	20N		10N
	Time duration : 10±1second Bending for twice in two direction After above test, no visible damage.				

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Metalized Polyester Film Capacitor (Mini Dipped)

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 : $\Delta C/C : \leq \pm 2\%$ DF change : $\tan \delta : \leq 0.3\%$ at 1 KHZ		
Temperature Cycling IEC 68-2-14	Temperature: $\theta A = -55^{\circ}\text{C}$; $\theta B = +105^{\circ}\text{C}$ Time duration : 30min ; Cycle times : 5 次 ; Cycle times Capacitance change : $\Delta C/C : \leq \pm 5\%$ DF change : $\tan \delta : \leq 0.3\%$ at 1 KHZ Insulation Resistance: $\geq 50\%$ of the value before test		
Vibration IEC 68-2-6	Frequency : 10 ~ 500Hz Direction and Duration: Per direction 2hrs , Total 6hrs ; Amplitude 0.75mm OR acceleration 98m/s ² (Taking the severity of lower) No visible damage and deterioration in appearance		
Bump IEC 68-2-29	Bump times : 4000 times Acceleration : 390m/s ² Pulse duration : 6ms No visible damage and deterioration in appearance		
Climatic Sequence	Dry heat IEC 68-2-2	Temperature : +105°C Duration : 16h	No breakdown or flashover ; No visible damage and deterioration in appearance and the marking shall be legible Capacitance change : $\Delta C/C : \leq \pm 5\%$ DF change : $\Delta \tan \delta : \leq 0.3\%$ 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 : -55°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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Metalized Polyester Film Capacitor (Mini 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

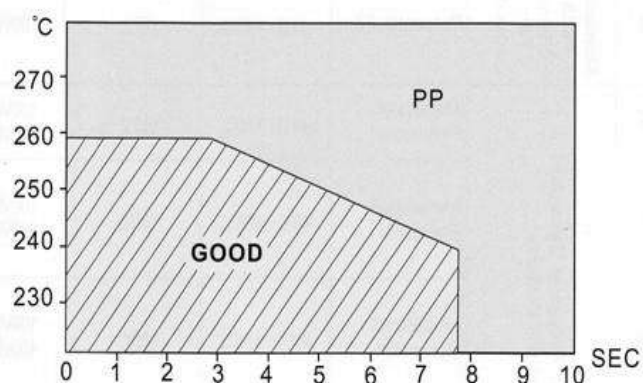
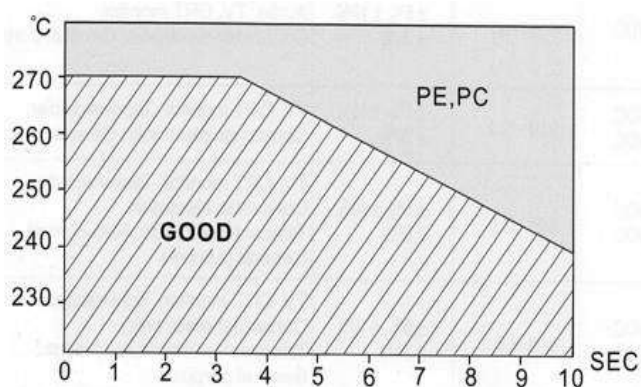
No visible damage and deterioration in appearance and the marking shall be legible

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

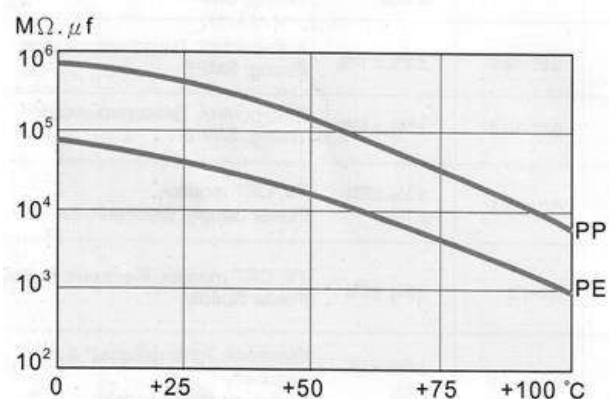
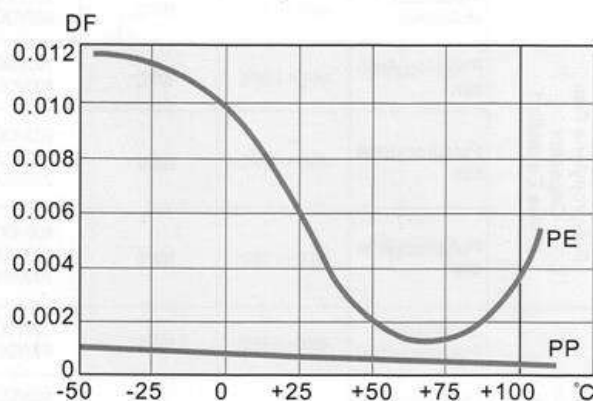
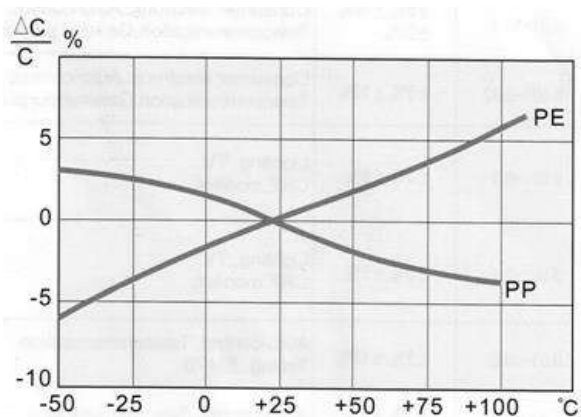
DF Change : $\tan \delta : \leq 0.5\%$ at 1 KHZ

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

✧ Soldering Temperature VS Time



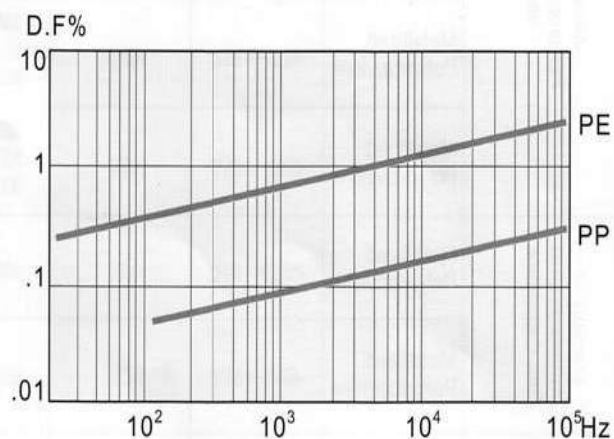
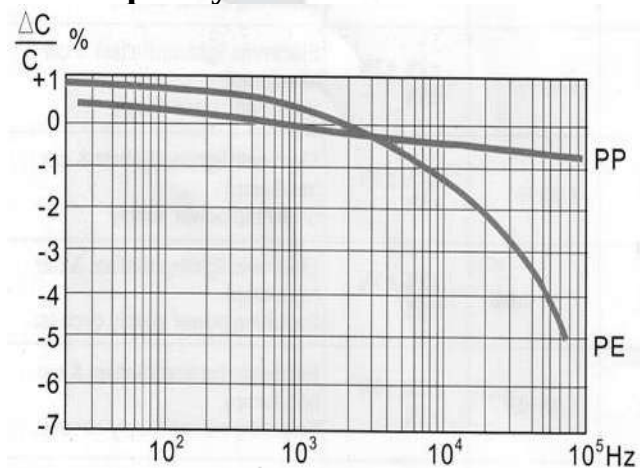
✧ Temperature Characteristics



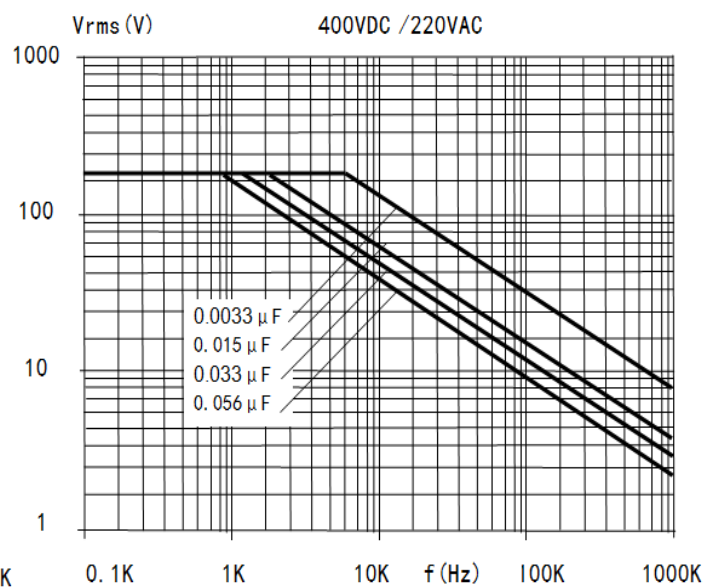
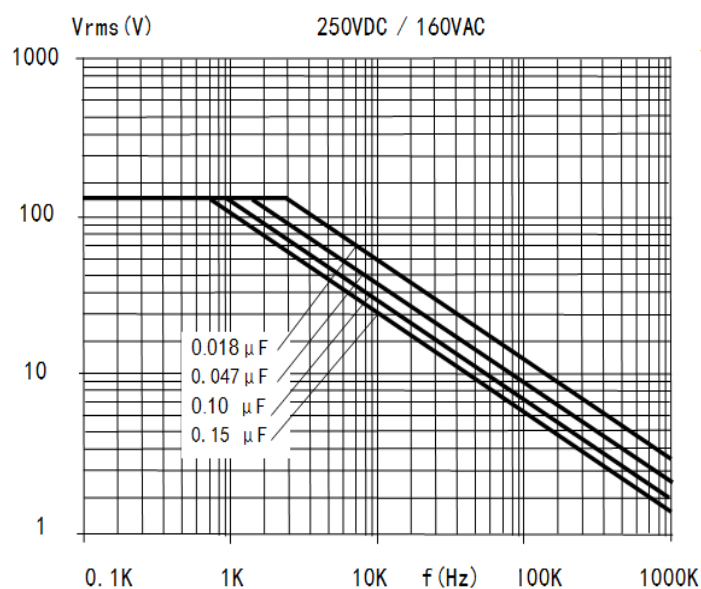
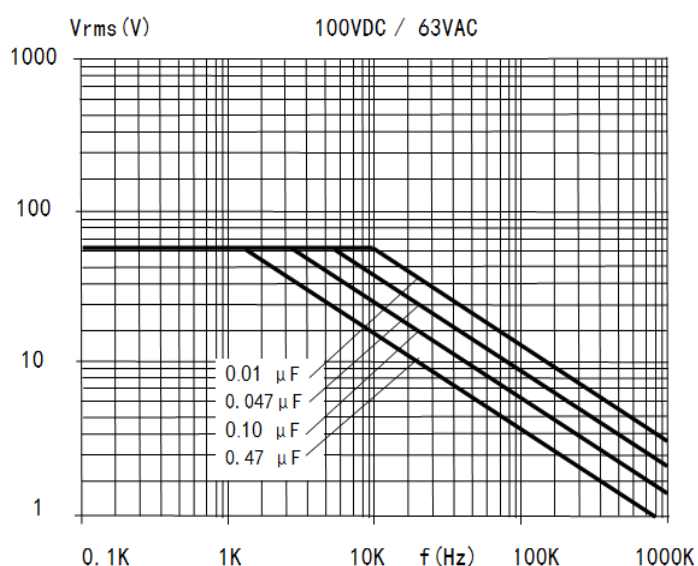
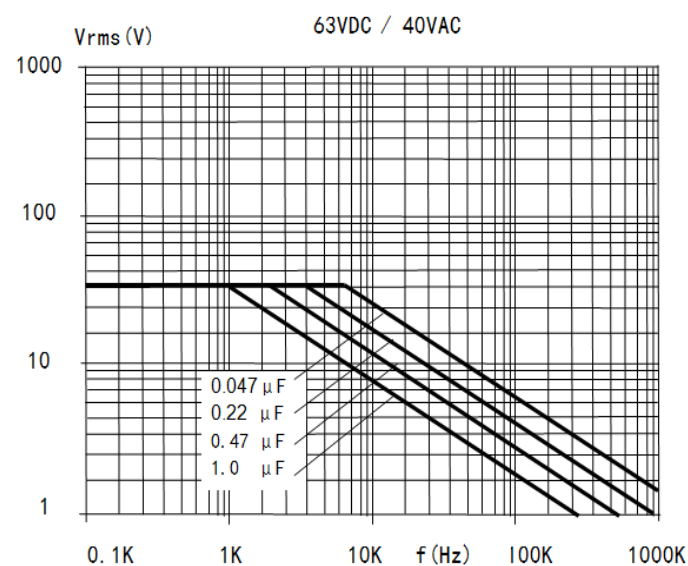
PP: 聚丙烯薄膜 (Polypropylene Film)

PE: 聚酯薄膜 (Polyester Film)

✧ Frequency Characteristics

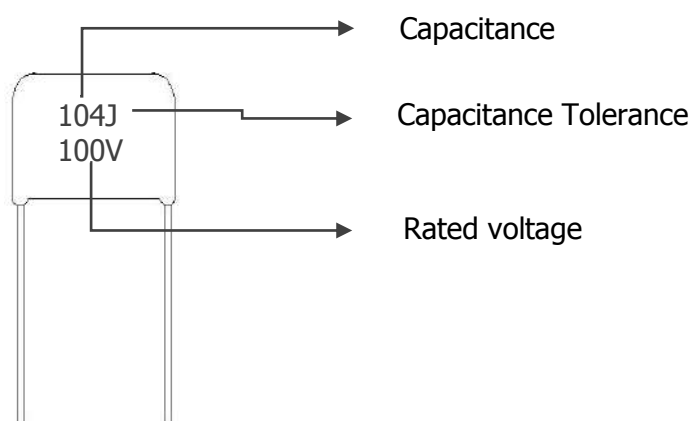


✧ Permissible AC Voltage VS Frequency Curve



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

✧ Marking Specification



✧ Taping Drawing & Dimensions

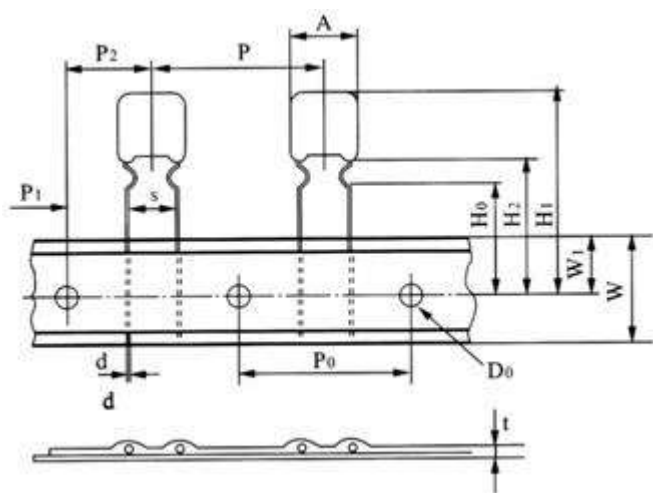


Fig.1

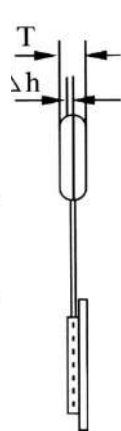
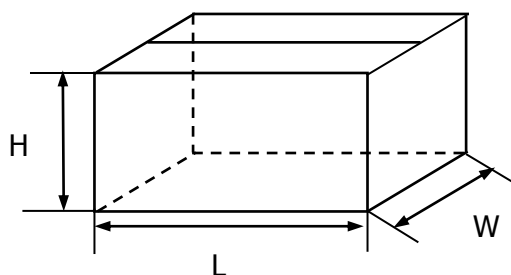


Fig.2

技术指标	代码	尺寸 (mm)					技术指标	代码	尺寸 (mm)				
		P=5	P=7.5	P=10	P=15	误差			P=5	P=7.5	P=10	P=15	误差
编带类型		Fig1	Fig1	Fig2	Fig2		编带类型		Fig1	Fig1	Fig2	Fig2	
截面距离	P	12.7	12.7	25.4	25.4	±1.0	纸带宽度	W	18.0	18.0	18.0	18.0	±0.5
孔间距	P0	12.7	12.7	12.7	12.7	±0.3	插孔位置	W1	9.0	9.0	9.0	9.0	±0.5
引线位置	P1	3.85	2.6	7.7	5.2	±0.7	弯脚高度	H0	16	16	16	16	±0.5
成型间距	S	5.0	7.5	10.0	15.0	±0.5	上限尺寸	H1	39	39	39	39	max
本体位置	P2	6.35	6.35	12.7	12.7	±1.3	孔径	D0	4.0	4.0	4.0	4.0	±0.3
产品斜度	Δh	0	0	0	0	±0.2	编带厚度	t	0.7	0.7	0.7	0.7	±0.2

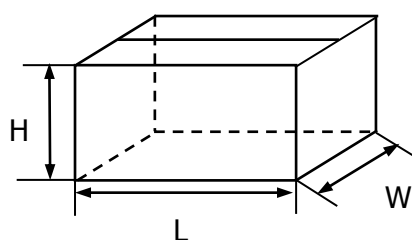
◇ Carton Size

**Out packaging box for bulk**

L: 480mm

W: 320mm

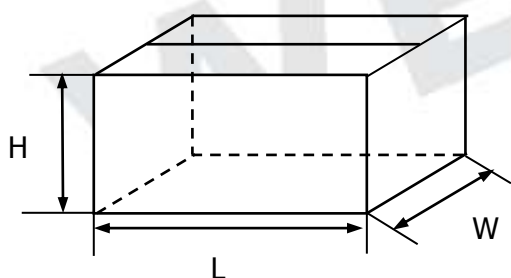
H: 280mm

**Inner packing box for bulk**

L: 280mm

W: 225mm

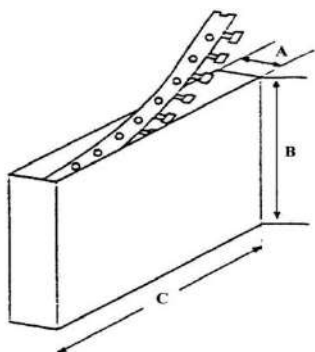
H: 120mm

**Out packaging box for taping**

L: 640mm

W: 360mm

H: 290mm

**Inner packing box for taping**

A: 50mm

B: 320mm

C: 330mm