

# 盒式金属化聚丙烯膜抗干扰电容器 (MPK/X1) 规格书

## 特点

- 电容器容量范围从 0.001 $\mu$ F 到 1.0 $\mu$ F。
- 工作温度：-40 $^{\circ}$ C~110 $^{\circ}$ C。
- 储存温度：15 $^{\circ}$ C~35 $^{\circ}$ C。
- 能承受过压冲击。
- 阻燃性树脂 (UL94V-0)。

## 用途

- 主要用于各种电源跨接线路等抗干扰场合。

## 安全认证

国家	认证组织	标准号	证书号	容量范围	额定电压
美国/加拿大	UL/cUL	UL60384-14	E208107	0.001 $\mu$ F ~ 1 $\mu$ F	330VAC 440VAC 480VAC 500VAC 530VAC
德国	VDE	IEC60384-14:2013/AMD1:2016	40054631		
欧盟	ENEC	IEC60384-14:2013/AMD1:2016	40054631		
中国	CQC	IEC60384-14:2013+AMD1:2016	CQC22001337767		

## 料号编码原则

X1	S1	104	K	Q	1	B0	180	120	060	E	V	0
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类型  
X1

容量

103:10nF  
104:100nF  
105:1.0μF

脚距

J:7.5mm  
N:10.0mm  
Q:15.0mm  
T:22.5mm  
V:27.5mm  
L:37.5mm

宽度

060:6.0mm  
180:18.0mm

厚度

060:6.0mm  
120:12.0mm

内部管理码

内部管理码  
(外壳颜色)  
V:蓝色  
E:灰色

高度

060:6.0mm  
120:12.0mm

环保类型

E:RoHS  
F:RoHS+ 无卤

电压

R1:330VAC  
S1:440VAC  
S3:480VAC  
H2:500VAC  
K1:530VAC

脚型

1:长直脚脚型  
2:内弯脚型  
5:直脚编带  
6:弯脚编带

精度

K:±10%  
M:±20%

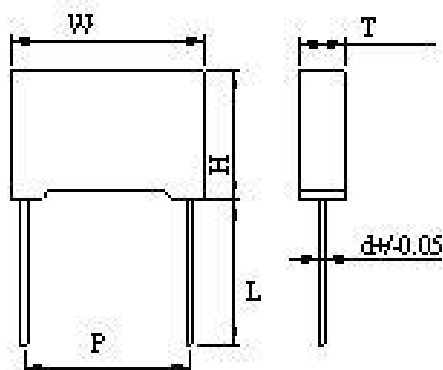
脚长

30~39:3.0~3.9mm  
40~49:4.0~4.9mm  
50~59:5.0~5.9mm  
60~69:6.0~6.9mm  
70~79:7.0~7.9mm  
80~89:8.0~8.9mm  
90~99:9.0~9.9mm  
A0~A9:10.0~19.0mm  
B0~B9:20.0~29.0mm

## 技术要求

气候类别	40/110/56B
额定电压	330VAC、440VAC、480VAC、500VAC、530VAC。
损耗角正切	≤0.1%
耐电压	引脚与壳体之间: $2U_R + 1500VAC$ , 最小 2000VAC。
	两引出端之间: $4.3U_R(DC) / 5S$ 。
绝缘电阻	$C_R \leq 0.33 \mu F$ , $IR \geq 15000M\Omega$
	$C_R > 0.33 \mu F$ , $IR \geq 5000S$ 注: $T[s] = I.R. [M\Omega] * CN [\mu F]$ 20℃、100V、60S。
脉冲电压	施加电压: $CR \leq 1.0 \mu F$ , 4KVDC $CR > 1.0 \mu F$ , $4KVDC / \sqrt{C_R}$
	脉冲次数: 24 次 时间周期: 充电 9S, 放电 2S。
自燃试验	$U \sim U_R$ , $U_i = 4.0KV$ 每一样品应承受一个储能电容 20 次, 每两次 放电之间的间隔为 5S。

## 外形尺寸 (mm)



脚长 L 依客户要求

容量 (uF)	电压	尺寸 (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.001	330VAC	10.0	11.0	5.0	7.5	0.6
	440VAC	10.0	11.0	5.0	7.5	0.6
	480VAC	10.0	11.0	5.0	7.5	0.6
	500VAC	10.0	11.0	5.0	7.5	0.6
	530VAC	10.0	11.0	5.0	7.5	0.6
0.0012	330VAC	10.0	11.0	5.0	7.5	0.6
	440VAC	10.0	11.0	5.0	7.5	0.6
	480VAC	10.0	11.0	5.0	7.5	0.6
	500VAC	10.0	11.0	5.0	7.5	0.6
	530VAC	10.0	11.0	5.0	7.5	0.6
0.0015	330VAC	10.0	11.0	5.0	7.5	0.6
	440VAC	10.0	11.0	5.0	7.5	0.6
	480VAC	10.0	11.0	5.0	7.5	0.6
	500VAC	10.0	11.0	5.0	7.5	0.6
	530VAC	10.0	11.0	5.0	7.5	0.6
0.0018	330VAC	10.0	11.0	5.0	7.5	0.6
	440VAC	10.0	11.0	5.0	7.5	0.6
	480VAC	10.0	11.0	5.0	7.5	0.6
	500VAC	10.0	11.0	5.0	7.5	0.6
	530VAC	10.0	11.0	5.0	7.5	0.6
0.0022	330VAC	10.0	11.0	5.0	7.5	0.6
	440VAC	10.0	11.0	5.0	7.5	0.6
	480VAC	10.0	11.0	5.0	7.5	0.6
	500VAC	10.0	11.0	5.0	7.5	0.6
	530VAC	10.0	11.0	5.0	7.5	0.6

容量 (uF)	电压	尺寸 (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.0027	330VAC	10.0	11.0	5.0	7.5	0.6
	440VAC	10.0	11.0	5.0	7.5	0.6
	480VAC	10.0	11.0	5.0	7.5	0.6
	500VAC	10.0	11.0	5.0	7.5	0.6
	530VAC	10.0	11.0	5.0	7.5	0.6
0.0033	330VAC	10.0	11.0	5.0	7.5	0.6
	440VAC	10.0	11.0	5.0	7.5	0.6
	480VAC	10.0	11.0	5.0	7.5	0.6
	500VAC	10.0	11.0	5.0	7.5	0.6
	530VAC	10.0	11.0	5.0	7.5	0.6
0.0039	330VAC	10.0	15.0	8.0	7.5	0.6
	440VAC	10.0	15.0	8.0	7.5	0.6
	480VAC	10.0	15.0	8.0	7.5	0.6
	500VAC	10.0	15.0	8.0	7.5	0.6
	530VAC	10.0	15.0	8.0	7.5	0.6
0.0047	330VAC	10.0	15.0	8.0	7.5	0.6
	440VAC	10.0	15.0	8.0	7.5	0.6
	480VAC	10.0	15.0	8.0	7.5	0.6
	500VAC	10.0	15.0	8.0	7.5	0.6
	530VAC	10.0	15.0	8.0	7.5	0.6
0.0056	330VAC	10.0	15.0	8.0	7.5	0.6
	440VAC	10.0	15.0	8.0	7.5	0.6
	480VAC	10.0	15.0	8.0	7.5	0.6
	500VAC	10.0	15.0	8.0	7.5	0.6
	530VAC	10.0	15.0	8.0	7.5	0.6
0.001	330VAC	13.0	11.0	5.0	10	0.6
	440VAC	13.0	11.0	5.0	10	0.6
	480VAC	13.0	11.0	5.0	10	0.6
	500VAC	13.0	11.0	5.0	10	0.6
	530VAC	13.0	11.0	5.0	10	0.6
0.0012	330VAC	13.0	11.0	5.0	10	0.6
	440VAC	13.0	11.0	5.0	10	0.6
	480VAC	13.0	11.0	5.0	10	0.6
	500VAC	13.0	11.0	5.0	10	0.6
	530VAC	13.0	11.0	5.0	10	0.6

容量 (uF)	电压	尺寸 (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.0015	330VAC	13.0	11.0	5.0	10	0.6
	440VAC	13.0	11.0	5.0	10	0.6
	480VAC	13.0	11.0	5.0	10	0.6
	500VAC	13.0	11.0	5.0	10	0.6
	530VAC	13.0	11.0	5.0	10	0.6
0.0018	330VAC	13.0	11.0	5.0	10	0.6
	440VAC	13.0	11.0	5.0	10	0.6
	480VAC	13.0	11.0	5.0	10	0.6
	500VAC	13.0	11.0	5.0	10	0.6
	530VAC	13.0	11.0	5.0	10	0.6
0.0022	330VAC	13.0	12.0	6.0	10	0.6
	440VAC	13.0	12.0	6.0	10	0.6
	480VAC	13.0	12.0	6.0	10	0.6
	500VAC	13.0	12.0	6.0	10	0.6
	530VAC	13.0	12.0	6.0	10	0.6
0.0033	330VAC	13.0	12.0	6.0	10	0.6
	440VAC	13.0	12.0	6.0	10	0.6
	480VAC	13.0	12.0	6.0	10	0.6
	500VAC	13.0	12.0	6.0	10	0.6
	530VAC	13.0	12.0	6.0	10	0.6
0.0039	330VAC	13.0	13.0	7.0	10	0.6
	440VAC	13.0	13.0	7.0	10	0.6
	480VAC	13.0	13.0	7.0	10	0.6
	500VAC	13.0	13.0	7.0	10	0.6
	530VAC	13.0	13.0	7.0	10	0.6
0.0047	330VAC	13.0	13.0	7.0	10	0.6
	440VAC	13.0	13.0	7.0	10	0.6
	480VAC	13.0	13.0	7.0	10	0.6
	500VAC	13.0	13.0	7.0	10	0.6
	530VAC	13.0	13.0	7.0	10	0.6
0.0056	330VAC	13.0	13.0	7.0	10	0.6
	440VAC	13.0	13.0	7.0	10	0.6
	480VAC	13.0	13.0	7.0	10	0.6
	500VAC	13.0	13.0	7.0	10	0.6
	530VAC	13.0	13.0	7.0	10	0.6

容量 (uF)	电压	尺寸 (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.0068	330VAC	13.0	13.0	7.0	10	0.6
	440VAC	13.0	13.0	7.0	10	0.6
	480VAC	13.0	13.0	7.0	10	0.6
	500VAC	13.0	13.0	7.0	10	0.6
	530VAC	13.0	13.0	7.0	10	0.6
0.0082	330VAC	13.0	15.0	8.0	10	0.6
	440VAC	13.0	15.0	8.0	10	0.6
	480VAC	13.0	15.0	8.0	10	0.6
	500VAC	13.0	15.0	8.0	10	0.6
	530VAC	13.0	15.0	8.0	10	0.6
0.01	330VAC	13.0	15.0	8.0	10	0.6
	440VAC	13.0	15.0	8.0	10	0.6
	480VAC	13.0	15.0	8.0	10	0.6
	500VAC	13.0	15.0	8.0	10	0.6
	530VAC	13.0	15.0	8.0	10	0.6
0.01	330VAC	18.0	11.0	5.0	15	0.8
	440VAC	18.0	11.0	5.0	15	0.8
	480VAC	18.0	11.0	5.0	15	0.8
	500VAC	18.0	11.0	5.0	15	0.8
	530VAC	18.0	11.0	5.0	15	0.8
0.012	330VAC	18.0	11.0	5.0	15	0.8
	440VAC	18.0	11.0	5.0	15	0.8
	480VAC	18.0	11.0	5.0	15	0.8
	500VAC	18.0	11.0	5.0	15	0.8
	530VAC	18.0	11.0	5.0	15	0.8
0.015	330VAC	18.0	11.0	5.0	15	0.8
	440VAC	18.0	11.0	5.0	15	0.8
	480VAC	18.0	11.0	5.0	15	0.8
	500VAC	18.0	11.0	5.0	15	0.8
	530VAC	18.0	11.0	5.0	15	0.8
0.018	330VAC	18.0	11.0	5.0	15	0.8
	440VAC	18.0	11.0	5.0	15	0.8
	480VAC	18.0	11.0	5.0	15	0.8
	500VAC	18.0	11.0	5.0	15	0.8
	530VAC	18.0	11.0	5.0	15	0.8

容量 (uF)	电压	尺寸 (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.022	330VAC	18.0	13.5	7.5	15	0.8
	440VAC	18.0	13.5	7.5	15	0.8
	480VAC	18.0	13.5	7.5	15	0.8
	500VAC	18.0	13.5	7.5	15	0.8
	530VAC	18.0	13.5	7.5	15	0.8
0.027	330VAC	18.0	13.5	7.5	15	0.8
	440VAC	18.0	13.5	7.5	15	0.8
	480VAC	18.0	13.5	7.5	15	0.8
	500VAC	18.0	13.5	7.5	15	0.8
	530VAC	18.0	13.5	7.5	15	0.8
0.033	330VAC	18.0	13.5	7.5	15	0.8
	440VAC	18.0	13.5	7.5	15	0.8
	480VAC	18.0	13.5	7.5	15	0.8
	500VAC	18.0	13.5	7.5	15	0.8
	530VAC	18.0	13.5	7.5	15	0.8
0.039	330VAC	18.0	14.5	8.5	15	0.8
	440VAC	18.0	14.5	8.5	15	0.8
	480VAC	18.0	14.5	8.5	15	0.8
	500VAC	18.0	14.5	8.5	15	0.8
	530VAC	18.0	14.5	8.5	15	0.8
0.047	330VAC	18.0	16.0	10.0	15	0.8
	440VAC	18.0	16.0	10.0	15	0.8
	480VAC	18.0	16.0	10.0	15	0.8
	500VAC	18.0	16.0	10.0	15	0.8
	530VAC	18.0	16.0	10.0	15	0.8
0.056	330VAC	18.0	19.0	11.0	15	0.8
	440VAC	18.0	19.0	11.0	15	0.8
	480VAC	18.0	19.0	11.0	15	0.8
	500VAC	18.0	19.0	11.0	15	0.8
	530VAC	18.0	19.0	11.0	15	0.8

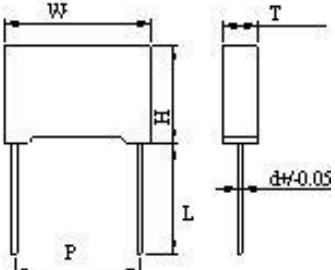
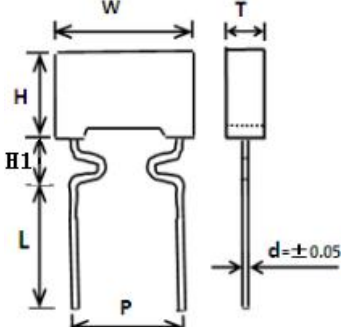
容量 (uF)	电压	尺寸 (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.068	330VAC	18.0	19.0	11.0	15	0.8
	440VAC	18.0	19.0	11.0	15	0.8
	480VAC	18.0	19.0	11.0	15	0.8
	500VAC	18.0	19.0	11.0	15	0.8
	530VAC	18.0	19.0	11.0	15	0.8
0.047	330VAC	26.5	16.5	7.0	22.5	0.8
	440VAC	26.5	16.5	7.0	22.5	0.8
	480VAC	26.5	16.5	7.0	22.5	0.8
	500VAC	26.5	16.5	7.0	22.5	0.8
	530VAC	26.5	16.5	7.0	22.5	0.8
0.056	330VAC	26.5	17.0	8.5	22.5	0.8
	440VAC	26.5	17.0	8.5	22.5	0.8
	480VAC	26.5	17.0	8.5	22.5	0.8
	500VAC	26.5	17.0	8.5	22.5	0.8
	530VAC	26.5	17.0	8.5	22.5	0.8
0.068	330VAC	26.5	17.0	8.5	22.5	0.8
	440VAC	26.5	17.0	8.5	22.5	0.8
	480VAC	26.5	17.0	8.5	22.5	0.8
	500VAC	26.5	17.0	8.5	22.5	0.8
	530VAC	26.5	17.0	8.5	22.5	0.8
0.082	330VAC	26.5	17.0	8.5	22.5	0.8
	440VAC	26.5	17.0	8.5	22.5	0.8
	480VAC	26.5	17.0	8.5	22.5	0.8
	500VAC	26.5	17.0	8.5	22.5	0.8
	530VAC	26.5	17.0	8.5	22.5	0.8
0.1	330VAC	26.5	19.0	10.0	22.5	0.8
	440VAC	26.5	19.0	10.0	22.5	0.8
	480VAC	26.5	19.0	10.0	22.5	0.8
	500VAC	26.5	19.0	10.0	22.5	0.8
	530VAC	26.5	19.0	10.0	22.5	0.8
0.12	330VAC	26.5	19.0	10.0	22.5	0.8
	440VAC	26.5	19.0	10.0	22.5	0.8
	480VAC	26.5	19.0	10.0	22.5	0.8
	500VAC	26.5	19.0	10.0	22.5	0.8
	530VAC	26.5	19.0	10.0	22.5	0.8



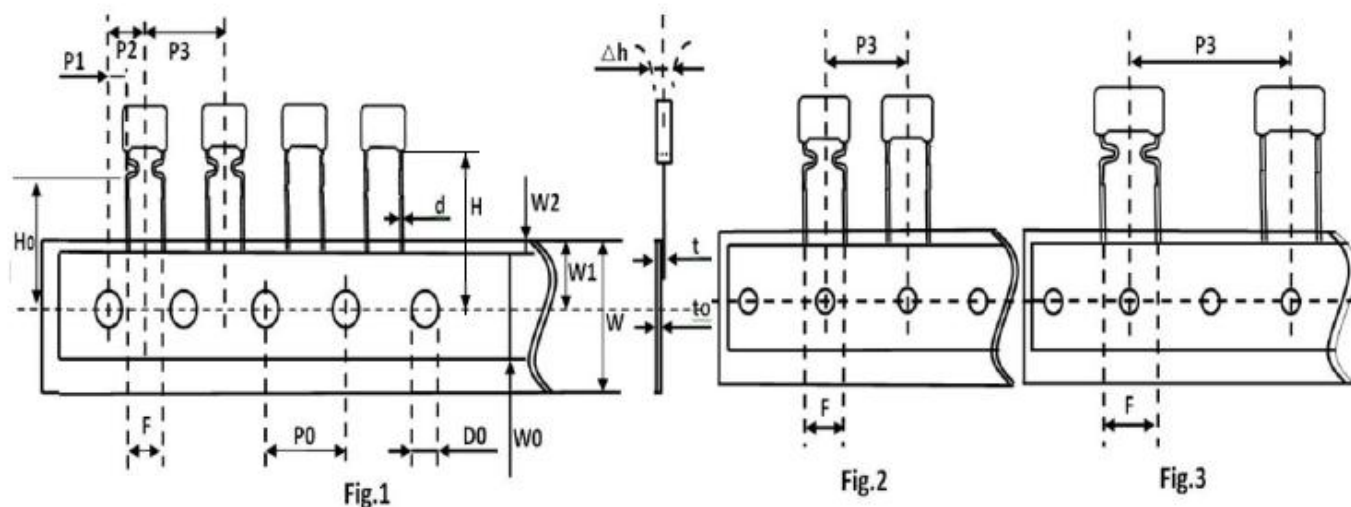
容量 (uF)	电压	尺寸 (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.15	330VAC	26.5	20.0	11.0	22.5	0.8
	440VAC	26.5	20.0	11.0	22.5	0.8
	480VAC	26.5	20.0	11.0	22.5	0.8
	500VAC	26.5	20.0	11.0	22.5	0.8
	530VAC	26.5	20.0	11.0	22.5	0.8
0.18	330VAC	26.5	23.0	13.0	22.5	0.8
	440VAC	26.5	23.0	13.0	22.5	0.8
	480VAC	26.5	23.0	13.0	22.5	0.8
	500VAC	26.5	23.0	13.0	22.5	0.8
	530VAC	26.5	23.0	13.0	22.5	0.8
0.1	330VAC	31.5	20.0	11.0	27.5	0.8
	440VAC	31.5	20.0	11.0	27.5	0.8
	480VAC	31.5	20.0	11.0	27.5	0.8
	500VAC	31.5	20.0	11.0	27.5	0.8
	530VAC	31.5	20.0	11.0	27.5	0.8
0.15	330VAC	31.5	20.0	11.0	27.5	0.8
	440VAC	31.5	20.0	11.0	27.5	0.8
	480VAC	31.5	20.0	11.0	27.5	0.8
	500VAC	31.5	20.0	11.0	27.5	0.8
	530VAC	31.5	20.0	11.0	27.5	0.8
0.18	330VAC	31.5	22.0	13.0	27.5	0.8
	440VAC	31.5	22.0	13.0	27.5	0.8
	480VAC	31.5	22.0	13.0	27.5	0.8
	500VAC	31.5	22.0	13.0	27.5	0.8
	530VAC	31.5	22.0	13.0	27.5	0.8
0.22	330VAC	31.5	25.0	14.0	27.5	0.8
	440VAC	31.5	25.0	14.0	27.5	0.8
	480VAC	31.5	25.0	14.0	27.5	0.8
	500VAC	31.5	25.0	14.0	27.5	0.8
	530VAC	31.5	25.0	14.0	27.5	0.8
0.27	330VAC	31.5	25.0	14.0	27.5	0.8
	440VAC	31.5	25.0	14.0	27.5	0.8
	480VAC	31.5	25.0	14.0	27.5	0.8
	500VAC	31.5	25.0	14.0	27.5	0.8
	530VAC	31.5	25.0	14.0	27.5	0.8

容量 (uF)	电压	尺寸 (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.33	330VAC	31.0	28.0	18.0	27.5	0.8
	440VAC	31.0	28.0	18.0	27.5	0.8
	480VAC	31.0	28.0	18.0	27.5	0.8
	500VAC	31.0	28.0	18.0	27.5	0.8
	530VAC	31.0	28.0	18.0	27.5	0.8
0.39	330VAC	41.5	28.0	14.0	37.5	0.8
	440VAC	41.5	28.0	14.0	37.5	0.8
	480VAC	41.5	28.0	14.0	37.5	0.8
	500VAC	41.5	28.0	14.0	37.5	0.8
	530VAC	41.5	28.0	14.0	37.5	0.8
0.47	330VAC	41.5	30.0	17.0	37.5	0.8
	440VAC	41.5	30.0	17.0	37.5	0.8
	480VAC	41.5	30.0	17.0	37.5	0.8
	500VAC	41.5	30.0	17.0	37.5	0.8
	530VAC	41.5	30.0	17.0	37.5	0.8
0.56	330VAC	41.5	30.0	17.0	37.5	0.8
	440VAC	41.5	30.0	17.0	37.5	0.8
	480VAC	41.5	30.0	17.0	37.5	0.8
	500VAC	41.5	30.0	17.0	37.5	0.8
	530VAC	41.5	30.0	17.0	37.5	0.8
0.68	330VAC	41.5	34.0	20.5	37.5	0.8
	440VAC	41.5	34.0	20.5	37.5	0.8
	480VAC	41.5	34.0	20.5	37.5	0.8
	500VAC	41.5	34.0	20.5	37.5	0.8
	530VAC	41.5	34.0	20.5	37.5	0.8
0.82	330VAC	41.5	34.0	20.5	37.5	0.8
	440VAC	41.5	34.0	20.5	37.5	0.8
	480VAC	41.5	34.0	20.5	37.5	0.8
	500VAC	41.5	34.0	20.5	37.5	0.8
	530VAC	41.5	34.0	20.5	37.5	0.8
1.0	330VAC	41.5	35.5	22.5	37.5	0.8
	440VAC	41.5	35.5	22.5	37.5	0.8
	480VAC	41.5	35.5	22.5	37.5	0.8
	500VAC	41.5	35.5	22.5	37.5	0.8
	530VAC	41.5	35.5	22.5	37.5	0.8

## 脚型、脚长说明

脚型	图示	脚长 L (mm)	高度 H1 (mm)
长直脚脚型		① $[2.5 \leq L < 6.0] \pm 0.5$ ; ② $[6.0 \leq L \leq 10] \pm 1.0$	/
内弯脚型		① $[2.5 \leq L < 6.0] \pm 0.5$ ; ② $[6.0 \leq L \leq 10] \pm 1.0$	脚距 $P > 10\text{mm}$ : $H1 < 6.0\text{mm}$ 脚距 $P \leq 10\text{mm}$ : $H1 < 5.0\text{mm}$

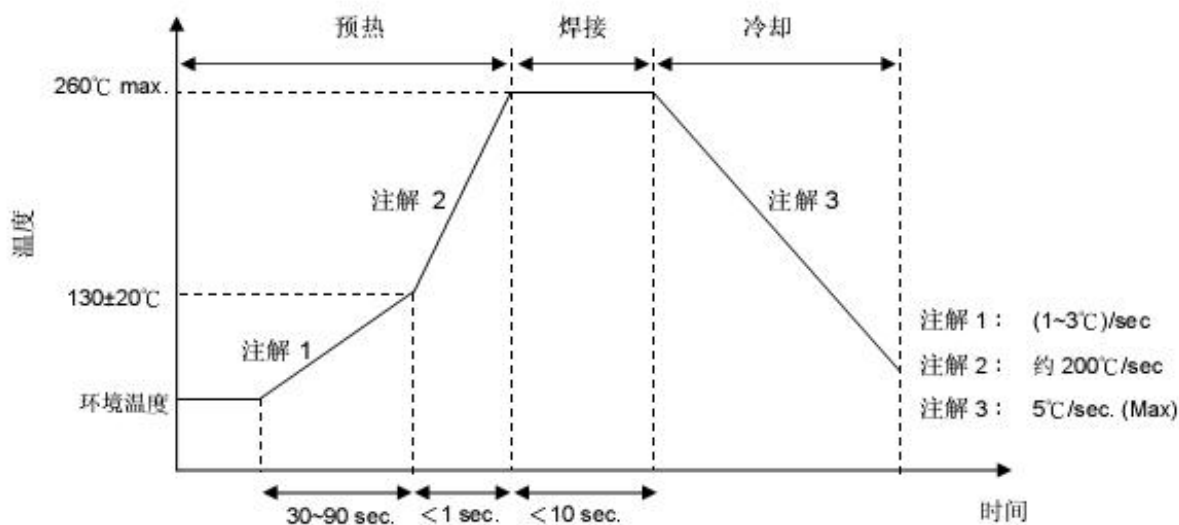
## 编带尺寸 (mm)



代码	Fig. 1	Fig. 2	Fig. 2	Fig. 3	Fig. 3	误差
	P=5.0	P=7.5	P=10	P=15	P=20/22.5	
P3	12.7	12.7	12.7	25.4	30.0	±1.0
P2	6.35	/	/	/	/	±1.3
P0	12.7	12.7	12.7	12.7	15.0	±0.3
P1	3.85	/	/	/	/	±0.7
F	5.0	7.5	10.0	15.0	20.0/22.5	±1.0
H	20.0	20.0	20.0	20.0	20.0	±1.0
H0	16.5	16.5	16.5	16.5	16.5	±0.5
Δh	0	0	0	0	0	±2.0
W	18.0	18.0	18.0	18.0	18.0	+1.0/-0.5
W0	12.0	12.0	12.0	12.0	12.0	±1.0
W1	9.0	9.0	9.0	9.0	9.0	±0.5
W2	3.0	3.0	3.0	3.0	3.0	Max
D0	4.0	4.0	4.0	4.0	4.0	±0.3
d	0.5	0.6	0.6	0.8	0.8	±0.05
t	1.0	1.1	1.1	1.4	1.4	±0.2
t0	0.38	0.38	0.38	0.47	0.47	±0.04

## 焊接条件

波峰焊曲线



烙铁重工焊接条件

项目	条件
烙铁头部温度	$360^\circ\text{C}$ (max.)
焊接时间	3 sec (max.)
焊接位置与涂装层距离	2 mm (min.)

## 储存环境要求

■ 由于大气中存在氯化物、硫化物、硫酸物质等，所以产品储存在大气中，必须注意引出端的可焊性变差。

■ 产品不能暴露在高温和高湿状态，请在不拆开原包装的基础上，在下面环境中储存。

A、温度： $\leq 35^\circ\text{C}$

B、湿度： $\leq 70\%RH$

C、保存时间：不超过 12 个月