APPROVAL SHEET
承认书

Customer 客户	深圳市顺海科技有限公司	
Product Name 品名	X2 Safety AC Metallized Polypropylene Film Capacitors X2 交流金属化聚丙烯膜电容器	
CustomerP/N 客户料号 EG P/N EG 代码	Customer P/N 客户料号	EG P/N EG 代码
		MKP104K310A10L200(60)
Date 日期	2024-10-17	

（MANUFACTURER APPROVAL） 供应商承认栏			（CUSTOMER APPROVAL） 客户承认栏		
Prepared 承办	Checked 审核	Approved 批准	Prepared 承办	Checked 审核	Approved 批准
赵红	赵红	魏龙			

MANUFACTURER： EASY-GATHER ELECTRONIC CO.,LTD
供应商：东莞市易利嘉电子有限公司
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东莞市易利嘉电子有限公司

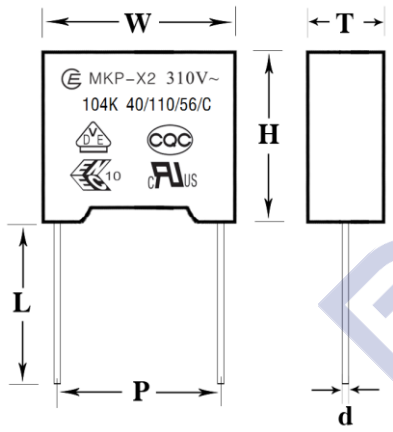
电容器（简式）规格书

MKP104K310A10L200(60)

推 荐 | 目前生产 | 一般用 | 安全规格 | 110℃ | 波峰 | RoHS | REACH

EG-RD4-021-08-0
初始日期 2024-10-17
更新日期 2024-10-17

外形及标志



宽度尺寸 W	13.0±0.5 mm
高度尺寸 H	12.0±0.5 mm
厚度尺寸 T	6.0±0.5mm
引线间距 P	10.0±1.0mm
引线直径 d	0.60±0.05mm
引线长度 L	18.0Min mm

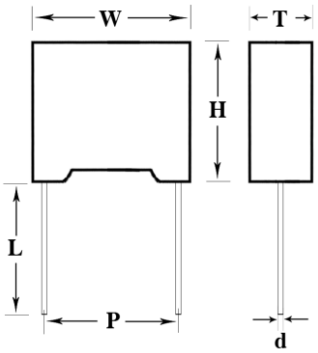
参考信息

	安规符号及国家(地区)		证书编号
安全认证	cULus	USA/Canada	E252221
	CQC	China	CQC15001123582
	VDE	Germany	40022258
	10	European Economic Community	
包装	散件或编带		最小包装数量
	散件		500PCS

电气性能

气候类别和阻燃等级	40/110/56/C
标称电容量	0.1μF
额定电压	310VAC 50/60Hz
标称电容量误差	±10%
耐电压	1600VDC
介质损耗	0.1%Max
绝缘电阻	≥15000MΩ
工作温度范围	-40℃～+110℃

1 product brief introduction 产品简介

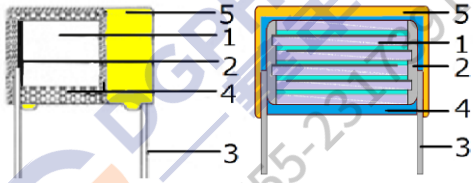


1.1 EG part No.易利嘉产品类别代码：MKP

1.2 Construction and main materials of products 产品结构和主要材料

MKP series are winded with metallized polypropylene film dielectric, non-inductive construction, CP wire and encapsulated in plastic case with flame retardant epoxy resin sealed. They have excellent features of self-healing and good flame retardant according to UL94V-0.

MKP 电容系列是由金属化聚丙烯膜无感结构卷绕而成，采用镀锡铜包钢线、塑胶壳体以及阻燃环氧树脂封装而成。它们有自我修复的优良特性和优良的阻燃性，符合 UL94V-0 标准。



NO.	Main Construction 主要结构	Materials 、Specification 材料、规格	Note 注意
1	Dielectric 电极+介质	Metallized Polypropylene Film 金属化聚丙烯膜	-/-
2	Solder 焊接端子	Sn-Zn alloy 锡锌合金	-/-
3	Terminal 引线	CP wire (Ø0.8or0.6mm) 镀锡铜包钢线（Ø0.6 或 0.8mm）	-/-
4	Sealed Material 封装材料	Epoxy resin 环氧树脂	UL94V-0
5	Plastic Case 塑胶壳体	PBT	UL94V-0

1.3 Features 特性

- Metallized polypropylene non-induction construction 金属化聚丙烯、无感结构
- High moisture-resistance 优良的耐湿性
- Self-healing property 自愈性
- Excellent active and passive flame resistant abilities（conforming to UL94-0)
  优异的阻燃性能(符合 UL94V-0）
- Withstanding overvoltage stressing 能够承受过压冲击

1.4 Hazardous Substances Compliance:All products pass following compliance or standard: RoHS: REACH; PAHS;HF;and Phthalates-Phthalates Regulation.

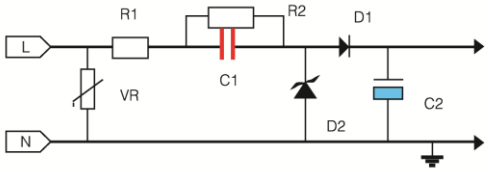
产品有害物质法规符合性：产品符合 RoHS；REACH；PAHS；HF（如需要）；邻苯二甲酸盐等法规。

1.5 Applications 用途

- X2 class for interference suppression 抑制电磁干扰
- “across the line” applications 跨接线路
- Capacitance divider where seriesed with the mains in energy meters,LED drivers and control boards in white goods and home appliances. 适用于电表、LED 驱动、控制器等串联在电路中阻容降压。

For the purpose of RC voltage divider, please choose “D” mark sub class model. (This“D” mark sub class model has the features of high stability in capacity and smallerin capacity drop, however it does not suitable forusingcrossing the line or as an EMI suppression filter)

注：用于阻容降压时，请注意选用标注有 D（MKP-X2/D）字样的产品小类（该小类电容量稳定性高，容降小，但不适宜用于跨接线路、抑制电磁干扰）。



Typical divider circuit 典型降压电路---降压电容器

1.6 ectrical Specifications 电气特性

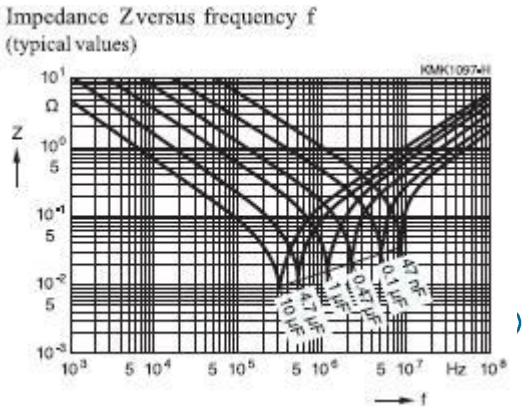
Item 项目	Specification 标准要求
Climatic Category 气候类别 Passive Flammability Class 阻燃等级	40/105/56/B（C） 40/110/56/B（C）
Operating Temperature 工作温度	-40℃～+105℃，-40℃～+110℃
Capacitance Range 容量范围	0.0047μF～2.2μF
Capacitance Tolerance 容量偏差	J：±5% K：±10%
Maximum Continuous DC Voltage 最大连续直流电压	630VDC
Maximum Continuous AC Voltage 最大连续交流电压	310VAC(50/60Hz)
Rated AC Voltage(IEC60384-14) 额定交流电压	310VAC/300VAC(50/60Hz)
Dissipation Factor 介质损耗	≤0.1%(1KHz at 20～25℃)
Insulation Resistance 绝缘电阻	≥15000MΩ for C_R≤0.33μF;≥5000S for C_R＞0.33μF(Measured at 100±10VDC/60s/20～25℃)
Withstand Voltage Between Terminals 端子间耐压	GeneralPurpose：1600VDC/1min,no breakdown or flashover.(Voltage raising time 5-10sec,cut off current 10mA,ARC=OFF) Compact product：1333VDC/1min,no breakdown or flashover.(Voltage raising time 5-10sec,cut off current 10mA,ARC=OFF) 标准品：施加测试电压 1600VDC/1 分钟，无击穿或飞弧。 小型化：施加测试电压 1333VDC/1 分钟，无击穿或飞弧。 (电压上升时间 5～10sec,漏电流 10mA,ARC=0FF)
Withstand Voltage Between Terminals and Case 端子与壳体间耐压	2100VAClmin,no breakdown or flashover. 施加测试电压 2100VAC/1 分钟，无击穿或飞弧。

1.7 Pulse handling capability 脉冲处理能力

"dv/dt"represents the maximum permissible voltage change per unit of time for non-sinusoidal voltages,expressed in V/μ S.
"dv/dt"表示非正弦电压单位时间内的最大允许电压变化，单位为 V/μS。
"ko"represents the maximum permissible pulse characteristic of the waveform applied to the capacitor, expressed in V^2/μ S.
"ko"表示施加到电容器上的波形的最大允许脉冲特性，以 V^2/μS 表示。
Note 备注:
The values of dv/dt and ko provided below must not be exceeded in order to avoid damaging the capacitor.
不得超过下面提供的 dv/dt 和 ko 值，以免损坏电容器。
dv/dt and kovalues dv/dt 和 ko 值

Lead spacing	10mm	15mm	22.5mm	27.5mm
dv/dt in V/μS	475	340	170	120
$k_o$in V^2/μS	408500	292400	146200	103200

1.8 电气特性图



2 EG Part number system 易利嘉产品代码

MKP	334	K	310	A	15	M	35	0	(*****)
1	2	3	4	5	6	7	8	9	1011 12

1 Product Categories产品类别代码：
MKP:X2 Metallized polypropylene film capacitor
MKP-X2金属化聚丙烯膜抗干扰电容器

2 Capacitance Code电容量代码:
The first 2 digits indicate significant figures,and the third digit specifies the number of zero to follow.
前两位数为电容的实际数字,最后一位为倍乘数。
0=×1　　1=×10　　2=×100
3=×1000　　4=×10000　　9=×0.1
This gives the capacitance in picofarad.电容量值单位为皮法（pF）。
102 =10×10²pF=1,000pF =1.0nF = 0.001μF　　105 =10*10⁵ pF= 1,000,000pF=1000nF = 1μF

3 Capacitance Tolerance电容量允许偏差:
J=±5%　　K=±10%

4 Rated Voltage额定电压:
310=310VAC
300=300VAC

5 Voltage Type电压类别:
A=alternative voltage交流电压

6 Lead Space引线间距(mm):
07=7.5　　10=10.0　　15=15.0　　22=22.5　　27=27.5

7 Lead Style线型形状:
L:直线　　M:直线短脚

8 Lead Length引线长度(mm):
Length categorization of packed and bulk lead (refer to the attached page for the taping picture)
包装及散装引线长度分类(编带图示见附录)
T：Taping 编带　Hole space 孔距:12.7mm
S：Taping 编带 Hole space 孔距:15mm
Pin Length 切脚长（Bulk and Short Pin 散装短脚品）：
35=3.5±0.5mm　　50=5.0±0.5mm　　80=8.0±1.0mm　　10=10.0±1.0mm　　20=18.0Min mm

9 RoHS Symbol环保标识:
0：Environmentally friendly products (in compliance with RoHS, Reach, and do not contain PAH or phthalates).
环保产品（符合RoHS、Reach、不含多环芳烃、不含邻苯二甲酸盐）
1：Non environmentally friendly 非环保
2：In addition to being compliant with the aforementioned environmentally friendly criteria "0", it should also show that the amount of halogens contained in the product meets the criteria.
除符合上述"0"代表的环保要求外，还表示该产品含卤素量符合规定要求。

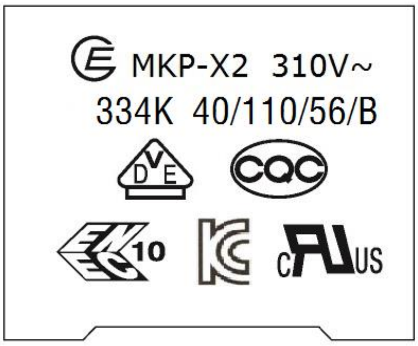
10～12Management Code内部管理码

3 Class MKP X2 Approval,Standard,Rated Voltage and File No.标准及认证

Safety Organization 安规机构	Standard NO. 标准编号	Recognition NO 证书编号	Rated Voltage 额定电压	Approved Monogram 组织和会标	
UL/CUL	UL60384-14	E252221	310VAC 300VAC		USA/Canada
CQC	GB/T6346.14-2015	CQC15001123582	310VAC 300VAC		China
VDE	EN 60384-14(VDE 0565 Teil 1-1):2014-04 EN 60384-14:2013-08 IEC 60384-14(ed.4)	40022258	310VAC 300VAC		Germany
ENEC			310VAC 300VAC		European Economic Community
KC	KC 60384-14(2015-09)	HU03026-17002A HU03026-17003A HU03026-17004A	310VAC 300VAC		Korea

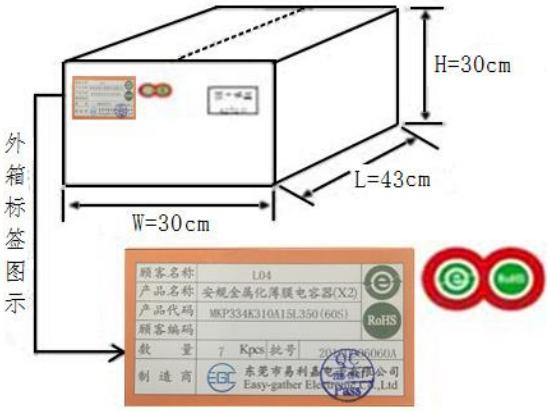
*KC certified capacitance range472~105 KC 认证电容量范围 472~105

4 Marking 标志(例)

Marking Item 标志项目			Example 案例
Manufacturer Marking 生产商商标			
Type Designation 型号名称	MKP		
Sub-Class Code 子类代码	X2		
Capacitance,Tolerance 电容量和误差	334K		
Rated Voltage 额定电压	310V～		
Climatic category 气候类别	40/110/56/B(C)		
Safety Organization Approved Marking 安规组织和批准标记	VDE		
	ENEC		
	UL/CUL		
	CQC		
	Korea		

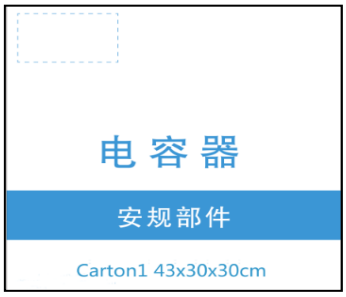
5 Packing in bulk 包装说明

5.1 (Outside packing box)外包装箱尺寸

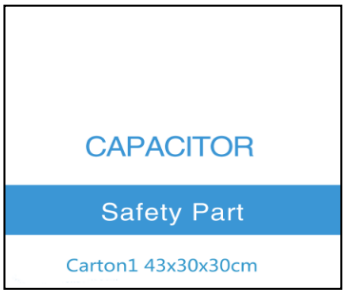


Packing box mark photo

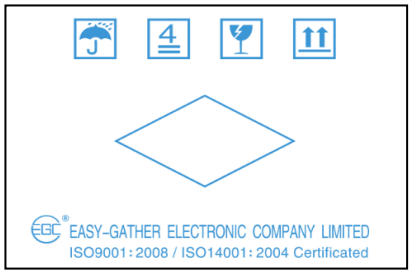
front view 主视图



back view 后视图

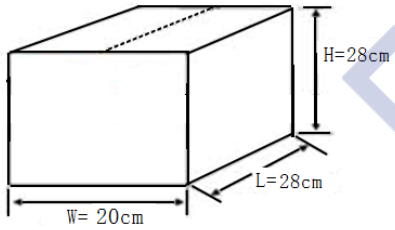


Left drawing 左视图



Right drawing 右视图

5.2 (Inner packing box)内包装箱尺寸



5.3 Bag package picture

内袋包装实物图片：

5.4 Bag mark photo 内袋标签图示：

1 PART. NO. 规格代码
2 CUST. P/N 客户料号
3 RATED CAP.ACITY 标称容量
4 RATED VOLTAGE 标称电压
5 QUANTITY 包装数量
6 LOT NO. 生产批号
7 ENVIRONMENT MARK 环保标识
8 TOL.ENCE 容量偏差
9 PACKAGE DATE 包装日期
10 QC SEAL QC 合格章

6 Regulation in usage 使用规则

6.1 OPERATING AND STORAGE ENVIRONMENT使用和储存环境

The insulating coating of capacitors does not form a perfect seal; therefore, do not use or store capacitors in a corrosive atmosphere, especially where chloride gas, sulfide gas, acid, alkali, salt or the likes are present. And avoid exposure to moisture. Before cleaning, bonding, or molding this product, verify that these processes do not affect product quality by testing the performance of a cleaned, bonded or molded product in the intended equipment. Store the capacitors where the temperature and relative humidity do not exceed-10 to 40℃ and 15 to 75%.

Being exposed in air for too long may result in attenuation of leads' welding performance.

Please use capacitors within 12 months and the date on packaging label should prevail. If overdue, the capacitors should be confirmed the performance before use.

电容器的绝缘外层不可能完全密封。因此，不要在下列大气环境下使用或者储存电容器：含有腐蚀性气体、特别是放置有含氯气体、含硫气体的地方；放置有酸、碱、盐等物质的地方。也要尽量避免将电容器暴露在潮湿的空气中。在清洗、焊接或者成型产品前要确认这些过程不会影响产品的品质，这种确认可以通过使用特定装备来测试清洗过、焊接过或者成型过的产品。电容器储存温度为-10℃～40℃，相对湿度为 15%～75%。

长时间暴露在空气中会导致产品引线焊接性能衰减。

请在 12 个月内使用电容器(以包装标签日期为准)。如超期，应进行性能确认后再使用。

6.2 VIBRATION AND IMPACT 振动和撞击

Do not expose a capacitor or its leads to excessive shock or vibration during use.

使用时，避免电容器及电容器引线受到过多的撞击或者振动。

6.3 SOLDERING焊接

（1）手动焊接：

最高温度 350℃，时间 3S

(1) Manual soldering:

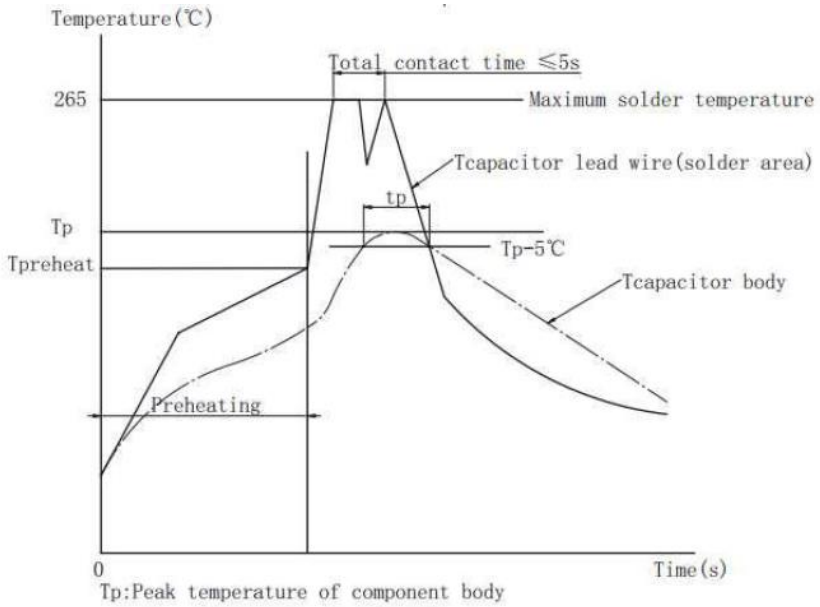
Maximum temperature 350℃, time 3S

（2）波峰焊工艺过程中有较多因素对薄膜电容器受热有影响，如：预热温度、预热时间、锡炉温度、过锡炉时间、其它热源影响等。

典型焊接曲线如下：

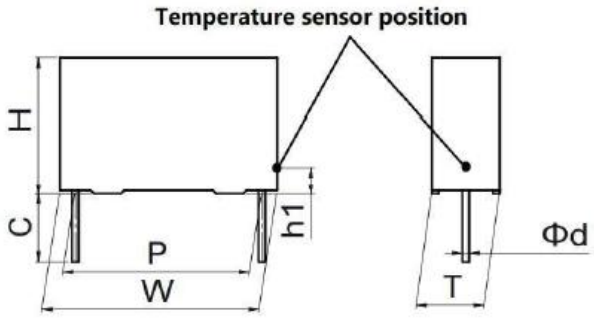
(2) There are many factors that affect the heating of film capacitors during the wave soldering process, such as: preheating temperature, preheating time, tin furnace temperature, tin furnace passing time, the influence of other heat sources, etc.

Typical soldering curves are as follows:



（3）因为过热有可能会损害电容器，我们建议关注电容器最高温度及耐热时间，用热电偶检测电容本体最高温度 Tp（测量位置参考下图）

(3) Because overheating may damage the capacitor, we recommend paying attention to the maximum temperature and heat resistance time of the capacitor, and using a thermocouple to detect the maximum temperature TP of the capacitor body (refer to the picture below for the measurement location).



测量点位置 Temperature sensor position (Tcapacitor body)	电容器引线侧的外壳表面，电容距 PCB 板高度：h1=2-3mm 的位置 The capacitor body surface of lead side, capacitor height position from PCB: h1=2-3mm		
焊接过程电容本体最高耐热温度 Maximum capacitor body temperature Tp (℃)	OPP film P≤15mm	OPP film P＞15mm	PET film
	115	120	125
焊接过程电容引脚最高耐热温度 Maximum capacitor lead wire temperature Tp (℃)	265	265	265
焊接过程电容本体最长耐热时间 Maximum capacitor body heating time Tp=Tp-5℃	30s		

备注：如果需要焊接两次，第二焊接必须等到电容器恢复到常温。
Note: If two soldering are required, the second soldering must be Wait until the capacitor returns to normal temperature.

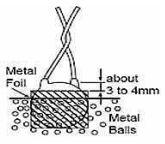
7 耐压试验、脉冲试验、自燃性试验被试验样品及试验环境应符合：

Temperature 环境温度: 小于 35 ℃
Relative humidity 相对湿度: 25~75%
TEST SAMPLE: The sample is required to store under a maximum relative humidity of 75% for minimum 24 hours.
试验样品：应在相对湿度不大于 75%条件下放置 24 小时以上。

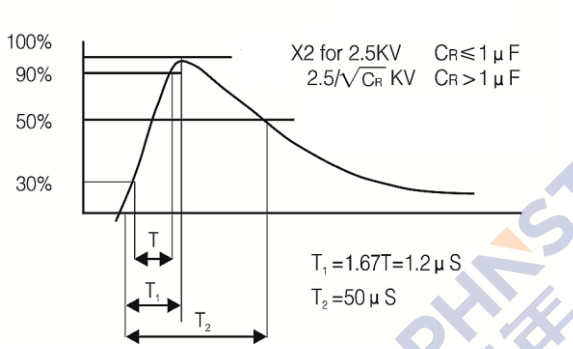
8 Specification and test methods 技术指标及试验方法

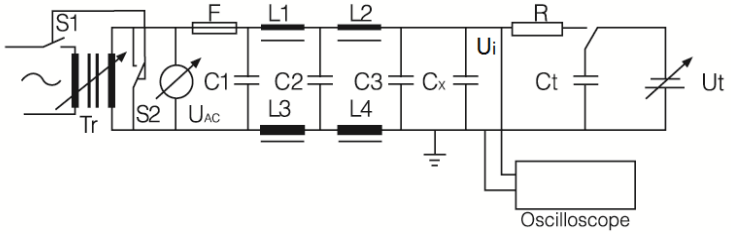
8.1 Test condition: Unless otherwise specified, the standard range of atmospheric Conditions for marking measurements and test is conducted in the following ambient
测试条件:除非另有规定，测试应在下列标准大气条件下进行：
Ambient temperature 环境温度: 15~35 ℃ Relative humidity 相对湿度: 25~75%.
If there may be any doubt on the results, measurements shall be made within the Following limits.
如对测试结果有任何疑问，则按以下条件测试： temperature 环境温度: 20±2℃ , Relative humidity 相对湿度:60~70%.
Default frequency of the related alternating current tests: 50Hz
交流电源相关测试默认频率：50Hz

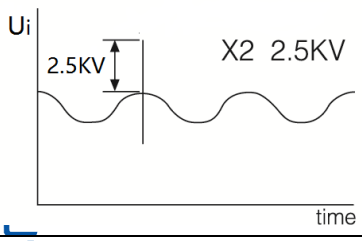
8.2 Specification and test methods技术指标及试验方法：

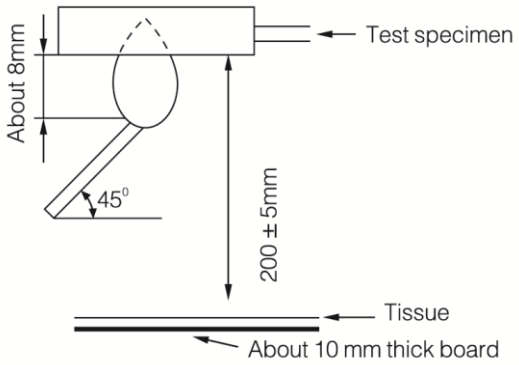
<table>
<tr><th>No</th><th colspan="2">Item 项目</th><th>Test method 试验方法</th><th colspan="3">Specification 技术参数</th></tr>
<tr><td>1</td><td colspan="2">Appearance
外观</td><td>The appearance shall be inspected by naked eyes.
用肉眼检查外观</td><td colspan="3">No marked defect on appearance
外观无显著缺陷</td></tr>
<tr><td>2</td><td colspan="2">Dimensions
尺寸</td><td>The dimensions shall be measured with slide calipers
用游标卡尺测量尺寸</td><td colspan="3">Dimensions of capacitor and taping shall satisfy specified requirement.
电容器的外型尺寸和编带尺寸应满足规定</td></tr>
<tr><td>3</td><td colspan="2">Marking
标志</td><td>The marking shall be checked by 4x magnifying glass.用 4 倍放大镜检查标志</td><td colspan="3">Legible marking
标志清晰易辨认</td></tr>
<tr><td>4</td><td colspan="2">Capacitance and tolerance
容量和误差</td><td>The capacitance shall be measured at 25℃ with 1KHz 1±0.2 Vrms.
电容量测量条件：25℃，1KHz1±0.2 Vrms</td><td colspan="3">Refer to 1.6
参照 1.6</td></tr>
<tr><td>5</td><td colspan="2">Dissipation factor(D.F)
介质损耗</td><td>The dissipation factor shall be measured at 25℃ with 1KHz 1±0.2 Vrms.
介质损耗测量条件：25℃，1KHz 1±0.2 Vrms.</td><td colspan="3">0.1% max</td></tr>
<tr><td rowspan="2">6</td><td colspan="2" rowspan="2">Insulation resistance
绝缘电阻</td><td rowspan="2">The insulation resistance shall be measured with 100VDC within 60±5 sec of charging.
绝缘电阻测量条件：100VDC,充电 60±5 秒</td><td colspan="2">Test A</td><td>Test B or Test C</td></tr>
<tr><td>C_R＞0.33μF
RC
S</td><td>C_R≤0.33μF
R
MΩ</td><td>R
MΩ</td></tr>
<tr><td></td><td>5000</td><td>15000</td><td>30000</td></tr>
<tr><td rowspan="5">7</td><td rowspan="5">Dielectric Strength(Voltage Proof)
耐电压</td><td rowspan="2">Between Lead Wires
引线之间</td><td colspan="3">The capacitor should not be damaged when test voltages of table below are applied between the lead wires for 60 sec.在引线之间施加下表所示试验电压 60s，电容器不会损坏。</td><td rowspan="5">No failure
不允许有失败</td></tr>
<tr><td>Type 类型</td><td colspan="2">Test Voltage 试验电压</td></tr>
<tr><td>X2</td><td colspan="2">标准 DC1600V(r.m.s.)</td></tr>
<tr><td rowspan="2">Body Insulation
本体绝缘</td><td colspan="3">First, the terminals of the capacitor should be connected together. Then, as shown in figure below, a metal foil should be closely wrapped around the body of the capacitor to the distance of about 3 to 4mm from each terminal.
Then, the capacitor should be inserted into a container filled with metal balls of about 1mm diameter. Finally, ac voltage of table below is applied for 60 sec. between the capacitor lead wires and metal balls.
首先，电容器引线终端应连接在一起。然后，如下图所示，将金属箔紧密缠绕在电容器本体的距各引出端大约 3 到 4mm 的地方。并将电容器插入充满直径 1mm 金属球的容器内。最后，在电容器引线和金属球之间施加如下表所示的交流电压，时间 60s.</td></tr>
<tr><td colspan="3">Type 类型 | Test Voltage 试验电压
X2 | AC2100V(r.m.s.)
 
</td></tr>
</table>

<table>
<tr><td>8</td><td>Robustness of Termination
引出端
强度</td><td colspan="2">The capacitor body shall be held in such a manner so that the axis of the lead is vertical.
The tensile force of 10N(for lead of Ø0.6～ Ø0.8mm)shall be applied to the lead in a direction of its axis and acting in a direction away from the body of the capacitor for 10±1 seconds.
使用某种方式固定电容器的本体，并使引线的轴心与本体垂直。为使引线脱离电容器本体，在本体反向引线端沿轴心施加 10N 的拉力（引线直径为 0.56mm~0.8mm），持续 10±1s。</td><td colspan="3">The capacitor shall be no broken and the lead shall be no loosenedor cut off.
电容器未损坏，引线未松动或者断开</td></tr>
<tr><td>9</td><td>Solderability Of leads
引线
可焊性</td><td colspan="2">The lead wire of a capacitor should be dipped Into molten solder for 2±0.5sec.
The depth of immersion is up to about 1.5 to 2.0mm from the root of lead wires.
Temp.of solder:
Lead Free solder(Sn-3Ag-0.5Cu) 245±5℃
H63 Eutectic Solder 235±5℃
引线应浸入熔融的焊料里 2±0.5 秒，浸入深度大约为 1.5~2mm（从引线底端算起）
焊料温度：无铅焊料（锡-3 银-0.5 铜）245±5℃
H63 共晶焊料 235±5℃</td><td colspan="3">A new uniform coating of solder shall cover a minimum of 95% of the surface being immersed
新的焊料层应均匀覆盖至少 95%被浸入表面</td></tr>
<tr><td rowspan="4">10</td><td rowspan="4">Resistance to Soldering heat
耐焊接热</td><td rowspan="4">Temperature of solder bath 260±5℃.
The immersing depth of lead shall be a position 2-0.5mm from the seating plane,using a thermal screen. The thickness of the screen is 1.5±0.5mm. The immersion time shall be 10±1 seconds. Post-treatment:The capacitor shall be preserved at the standard atmospheric condition for 1 to 2 hours.
焊浴温度：260±5℃。引线浸入深度：离底座 2-0.5mm。使用绝热板（厚度为 1.5±0.5mm）。
浸入时间：10±1 秒。
后处理：电容器应在标准大气压条件下放置 1-2 小时。</td><td>Appearance
外观</td><td colspan="3">No visible damage
没有明显损坏</td></tr>
<tr><td>Dissipation Factor
介质损耗</td><td colspan="3">As spec.参照规格书</td></tr>
<tr><td>Capacitance Change
电容量变化
(△C/C0)</td><td colspan="3">Within ±5% 低于±5%</td></tr>
<tr><td>Voltage proof (between leads)
耐电压（引线之间）</td><td colspan="3">Refer to Item 6.2.7
参照 6.2.7</td></tr>
<tr><td>11</td><td>Solvent Resistance
耐溶剂性</td><td>The capacitor shall be immersed into isopropyl alcohol for 30±5nds.seco
电容器应浸入异丙醇中 30±5 秒</td><td>Appearance
外观</td><td colspan="3">No visible damage
无明显损坏
Legible marking
标志清晰</td></tr>
<tr><td rowspan="6">12</td><td rowspan="6">Damp heat steady state
稳态湿热</td><td rowspan="6">The capacitor shall be stored for 56 days (1350±8hours) at a temperature of 40℃±2℃ and a relative humidity of （93±3）%.
Pre-treatment: the capacitor shall be stored at a temperature of 85℃±2℃ for 1 hour,and then the capacitor shall be recovered for 24±2 hours.
Post-treatment: the capacitor shall be stored for 1 to 2 hours at the standard atmospheric condition。
(Temperature:15 to 35℃,Relative humidity:45 to 75%,Atmospheric pressure:86 to 106kPa)
将电容器在 40℃±2℃、相对湿度（93±3）%条件下储存 56 天（1350±8 小时）。
预处理：在温度 85℃±2℃下储存电容器 1 小时，</td><td rowspan="2">Capacitance Change
电容量变化
(△C/C0)</td><td colspan="3">Capacitance Change
电容量变化</td></tr>
<tr><td colspan="3">Within ±5%</td></tr>
<tr><td rowspan="2">Dissipation Factor
介质损耗</td><td colspan="3">Specifications 技术参数</td></tr>
<tr><td colspan="3">△tgδ≤0.005(C_R＞1μF)
△tgδ≤0.008(C_R≤1μF)</td></tr>
<tr><td rowspan="2">I.R.</td><td colspan="2">Test A</td><td>Test B or Test C</td></tr>
<tr><td>C_R＞0.33μFR C S</td><td>C_R≤0.33μF R MΩ</td><td>R MΩ</td></tr>
<tr><td colspan="3"></td><td>3000</td><td>8000</td><td>15000</td></tr>
</table>

<table>
<tr><td></td><td></td><td>然后电容器恢复 24±2 小时。
后处理：在标准大气压下储存电容器 1-2 小时。（温度：15-35℃，相对湿度：45-75%，大气压力：86-106 千帕）</td><td>Dielectric Strength
介电强度</td><td colspan="4">Refer to Item 6.2.7
参照 6.2.7</td></tr>
<tr><td rowspan="6">13</td><td rowspan="6">Endurance test(life)
耐久性试验（寿命）</td><td rowspan="6">The capacitor shall be subjected to three impulses as shown below.
 

Then the capacitors are placed at a temperature of 110℃for 1000 hours. Throughout the test, the capacitors are subjected 50Hz/60Hz ，1.25$U_R$voltages,except that once each hour the voltage is increased to 1000 Vrms for 0.1sec.
Post-treatment:the capacitor shall be preserved for 24±2 hours at standard atmospheric condition.
电容器应经受 3 次脉冲，如下图。然后将电容器放置在 110℃下实验 1000 小时。在整个实验过程中，持续对电容器施加 50Hz/60Hz 1.25U_R 电压，每间隔一小时应将电压升高到 1000 Vrms，且持续时间 0.1 秒
后处理：在标准大气压下，电容器恢复 24±2 小时。</td><td>Appearance
外观</td><td colspan="4">No visible damage
无明显损伤</td></tr>
<tr><td rowspan="2">Capacitance Change
电容量变化
(△C/C0)</td><td colspan="4">Capacitance Change
电容量变化</td></tr>
<tr><td colspan="4">Within±10%</td></tr>
<tr><td rowspan="2">Dissipation Factor
介质损耗</td><td colspan="4">Specifications 技术参数</td></tr>
<tr><td colspan="4">△tgδ≤0.005(C_R＞1μF)
△tgδ≤0.008(C_R≤1μF)</td></tr>
<tr><td rowspan="3">Insulation resistance
绝缘电阻</td><td colspan="2">Test A</td><td>Test B or Test C</td></tr>
<tr><td>C_R＞0.33μF
RC
S</td><td>C_R≤0.33μF
R
MΩ</td><td>R
MΩ</td></tr>
<tr><td>3000</td><td>8000</td><td>15000</td></tr>
<tr><td>14</td><td>Active Flammability
自燃性</td><td colspan="2">The capacitor should be individually wrapped in at least one but not more than two complete layers of cheese-cloth. The capacitor should be subjected to 20 discharges. The interval between successive discharges should be 5 sec. The UAC should be maintained for 2 min. after the last discharge.
电容器应单独缠绕在粗棉布上至少 1 圈但不超过 2 圈。电容器应经受 20 次放电。放电间隔为 5 秒。在最后一次放电后，UAC 应持续 2 分钟。
 

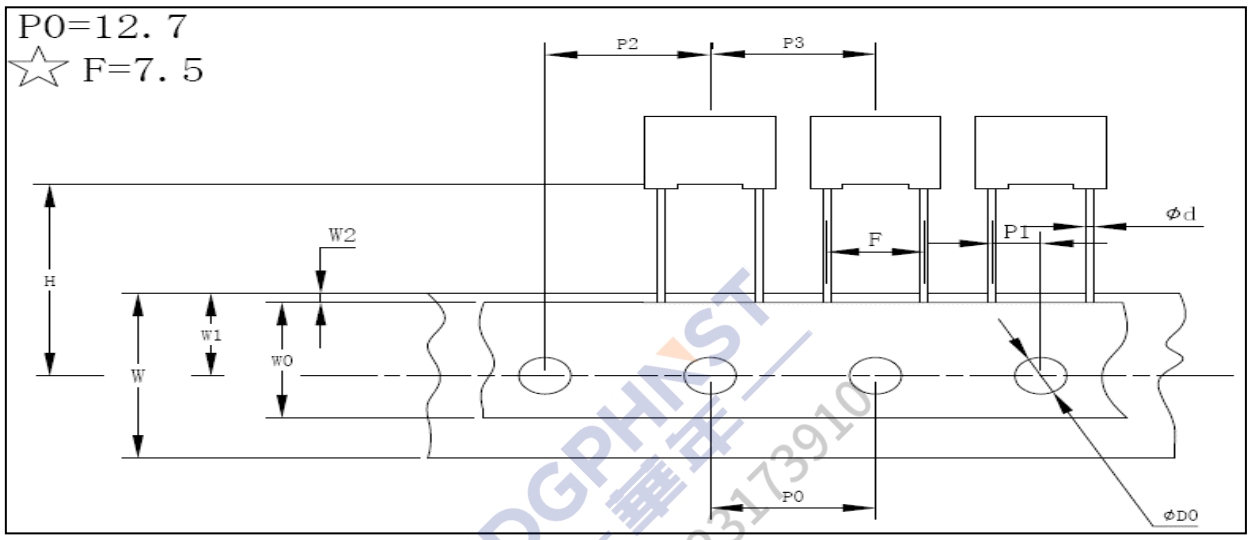
$C_{1,2}$:1uf±10% C_3:0.033uf±5% 10kV
$L_1$to $_4$:1.5mH±20% 16A Rod core choke
Ct:3uf±5% 10kV R:100Ω±2%
Cx:Capacitor under test U_{AC}:U_R±5%
F:Fuse,Rated 10A U_R:Rated Voltage
Ut:Voltage applied to Ct
 
</td><td colspan="2">The cheese-cloth should not be on fire.
粗棉布不会着火。</td></tr>
</table>

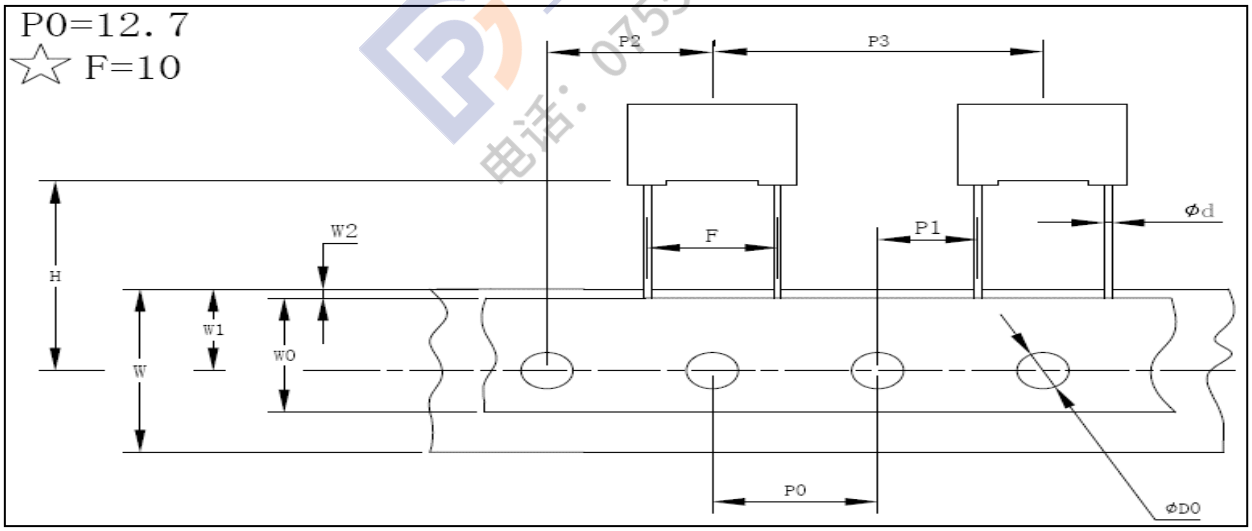
15	Passive flammability 阻燃性	 Length of flame:12mm 火焰长度：12mm Gas burner: Length 35mm min. 煤气燃烧器：至少 35mm Inside diameter:0.5±0.1mm 内径：0.5±0.1mm Outside diameter: 0.9mm min. 外径：最小值 0.9mm Gas: Butane gas purity 95% min. 气体：丁烷气纯度至少 95%	Severity and Requirements 严酷度等级和要求 **Flaming Ratings 有焰燃烧等级** **Severity Level 严酷等级** **Flame is applied for a time (S) against the capacitor volumes range (mm) 针对电容器体积范围（mm）施加火焰时间（S）** **Maximum flaming time（S）最大燃烧时间（S）** 250< Volumes 体积 ≤500 500< Volumes 体积 ≤1750 Volumes 体积 >1750 B: 20 / 30 / 60 / 10 C: 10 / 20 / 30 / 30

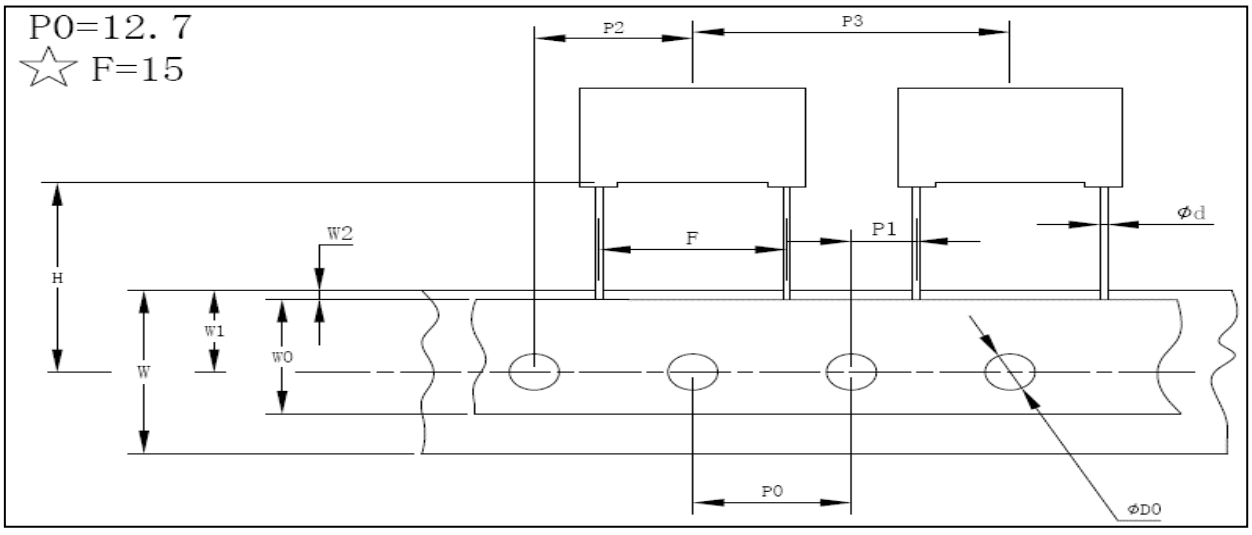
Attach page 附页

Taping specification

编带产品技术标准 P0=12.7mm

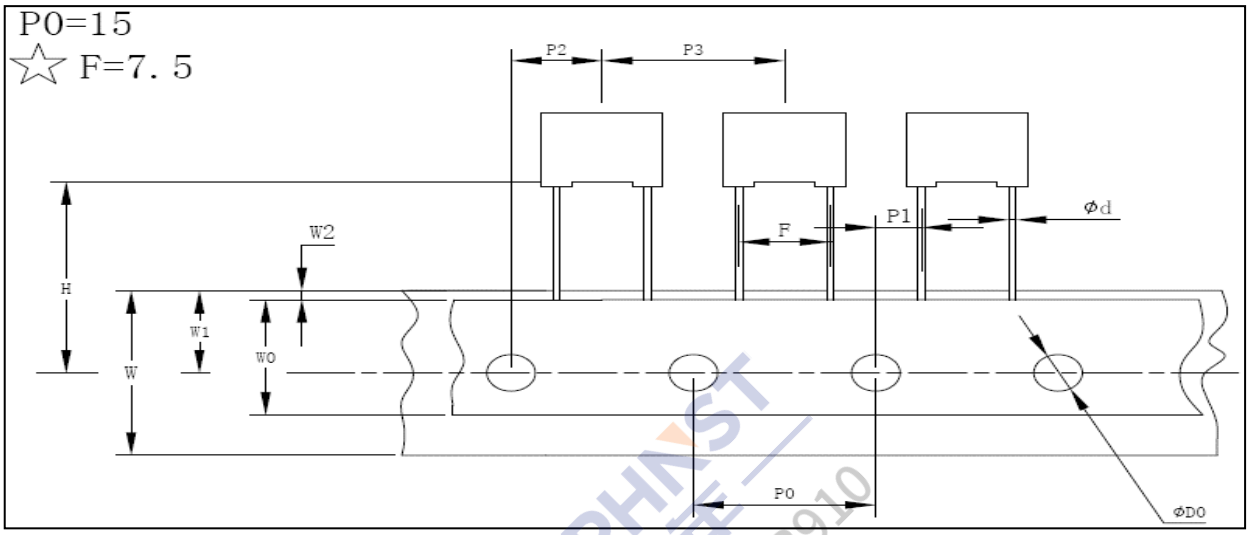


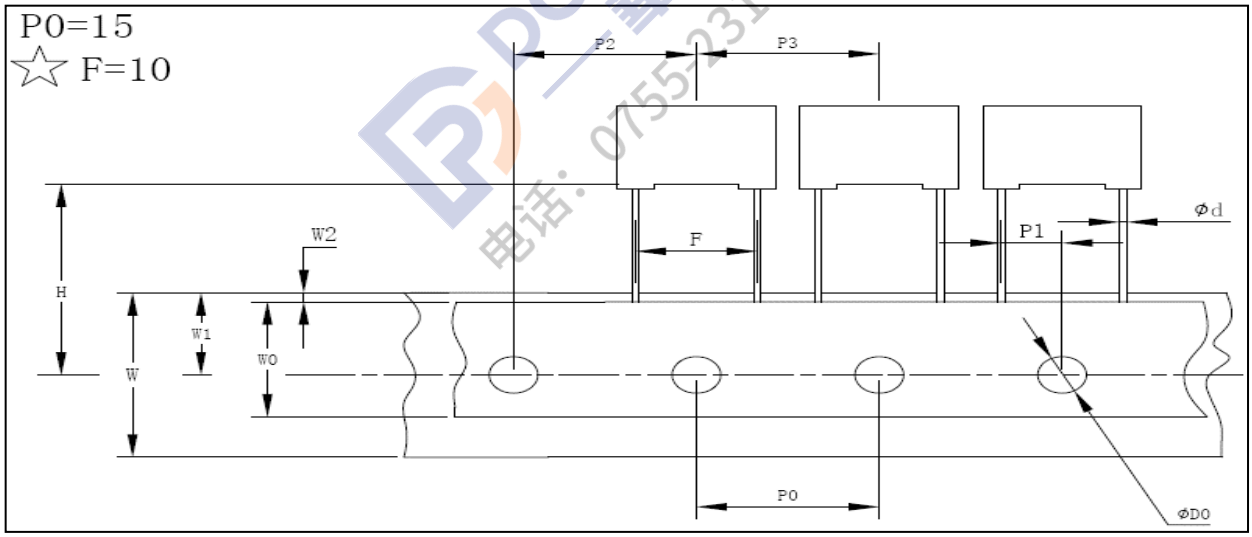


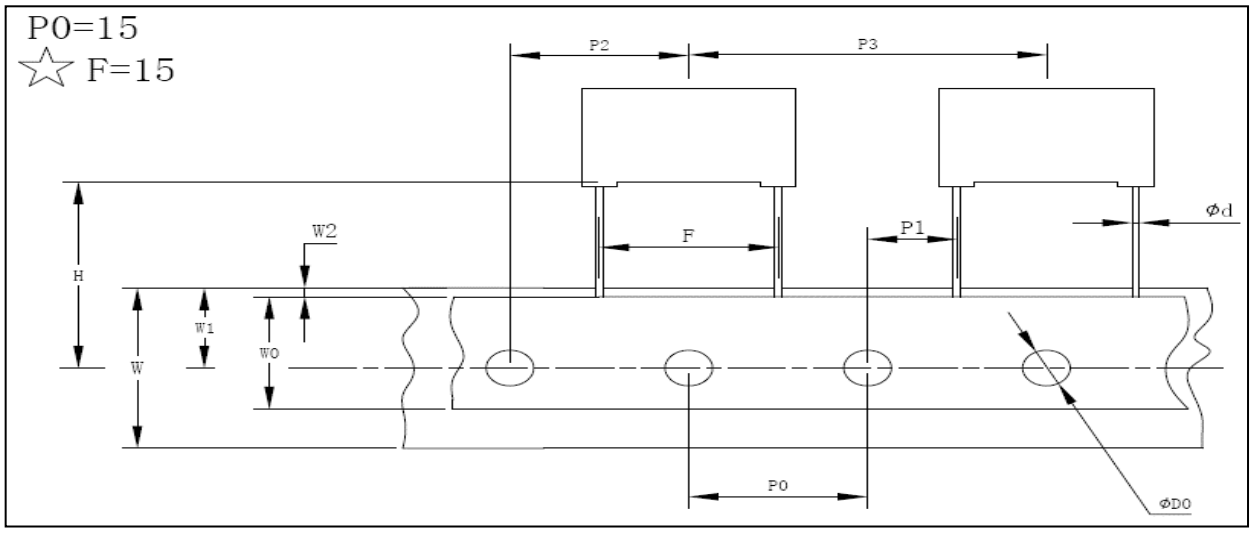


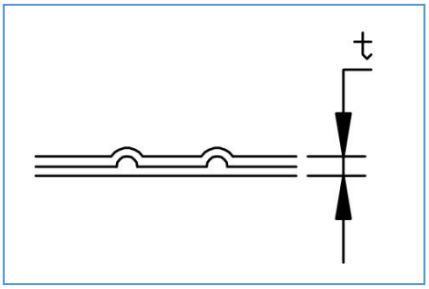
Taping specification

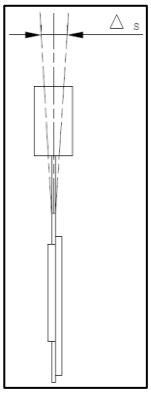
编带产品技术标准 P0=15mm











直脚品编带尺寸表：（mm）

符号	名称	S 型编带尺寸要求				T 型编带尺寸要求				误差
F	引线间距	5.0	7.5	10.0	15.0	5.0	7.5	10.0	15.0	±1.0
d	引线直径	0.6	0.6	0.6	0.8	0.6	0.6	0.6	0.8	±0.06
W	纸带宽度	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	+1.0/-0.5
W0	粘带宽度	10min	10min	10min	10min	10min	10min	10min	10min	/
W1	对输送孔的偏移	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	±0.5
W2	粘带边距	3 max	3 max	3 max	3 max	3 max	3 max	3 max	3 max	/
t	编带总厚度	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	±0.2
P0	输送孔间距	15.0	15.0	15.0	15.0	12.7	12.7	12.7	12.7	±0.3
D0	输送孔直径	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	±0.3
P1	对输送孔的偏移	5.0	3.75	5.0	7.5	3.85	3.75	7.7	5.2	±0.7
P2	对输送孔的偏移	7.5	7.5	15.0	15.0	6.35	12.7	12.7	12.7	±1.3
P3	编带间距	15.0	15.0	15.0	30.0	12.7	12.7	25.4	25.4	±1.0
H	输送孔到产品底部高度	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	±0.5
ΔS	电容器侧面倾斜	0	0	0	0	0	0	0	0	±2.0