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Model No. :KPT-G4020-3088	Revision No.	1.1
	Drawing No.	OEM3088R

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1. 范围 Scope

This product specification is applied to the piezoelectric sounder in alarm systems. Please contact us when using this product for any other applications than described in the above.

本规格书适用于压电式蜂鸣器，通常它用在系统中做报警或提示的蜂鸣器用，如果将该产品用于其它领域，请与我们联系。

2. 概要 General

2.1 Out-Diameter : Ø40mm

外径: Ø40 mm

2.2 Height : 20mm

高度: 20mm

2.3 Weight : 12 gr.

重量: 12克

2.4 Case Material/Color : ABS/Black

壳体材质/颜色: ABS/黑

3. 额定极限条件 Maximum Rating

	项目 Item	规格 Specification
3.1	最高输入电压 Maximum input Voltage	90Vp-p Square Wave/max.
3.2	工作温度范围 Operating Temperature Range	-20 ~ +70 °C
3.3	储存温度范围 Storage Temperature Range	-30 ~ +70 °C

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4. 电性能 Electrical Characteristics

	项目 Item	规格 Specification
4.1	声压 Sound Pressure Level	106dB at 9Vp-p/3.1KHz/10cm
4.2	容量 Capacitance at 100Hz	26000pF ± 30%

测试条件参见下项

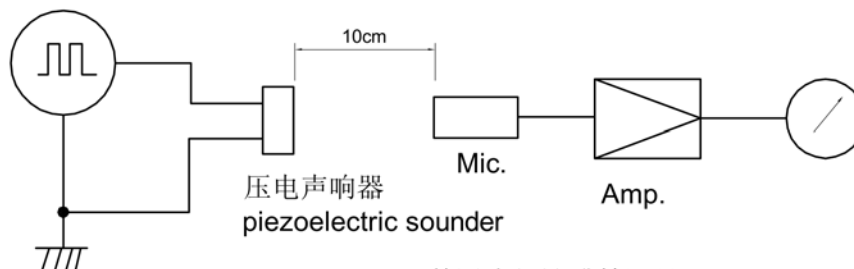
Refer to next item for measuring method.

5. 测试方法 Measuring Method

5.1 声压测试线路 S.P.L. Measuring Circuit

输入信号:9Vp-p,3.1KHz,方波

Input Signal:9Vp-p,3.1KHz,Square wave



MIC : ND10 普通声级计或等同品

MIC : ND10 S.P.L. or equivalent

S.G. : DF1010 振荡器或等同品

S.G. : DF1010 Oscillater or equivalent

5.2 测试环境 Measuring Condition

温度 $+25 \pm 3^{\circ}\text{C}$, 湿度 $60 \pm 10\% \text{R.H.}$.标准测试状态,在没有疑问的场合,可以在温度 $+5 \sim +35^{\circ}\text{C}$,湿度 $45 \sim 85\% \text{R.H.}$ 的范围内测试.

Part shall be measured under a condition (Temperature : $+5$ to $+35^{\circ}\text{C}$, Humidity : 45 to $85\% \text{R.H.}$.) unless the standard condition (Temperature : $+25 \pm 3^{\circ}\text{C}$, Humidity : $60 \pm 10\% \text{R.H.}$.) is regulated measure.

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6. 机械性能 Physical Characteristics

	Item	Specification
5	耐冲击性 Shock test	100G 正弦波, XYZ三个方向各3次冲击实验 后,测试蜂鸣器.试验后符合表1要求. 100G sine wave 3 times to each direction(X.Y.Z).The measured value shall meet Table 1.
6	耐焊接性 Heat-proof for solder	将蜂鸣器的插针插入(插至距蜂鸣器壳体1.5mm处为止) +300 ±5℃的焊锡槽3 ±0.5 秒或+260 ±5℃的焊锡槽10 ±1秒,然后在常温中放置4小时后,测试蜂鸣器.试验后符合表1要求. Lead terminal are immersed up to 1.5mm from Buzzer body in Buzzer bath of +300 ±5℃ for 3 ±0.5 seconds or ±260 ±5℃ for 10 ±1 seconds, and then Buzzer shall be measured after being placed in natural condition for 4hours.The measured value shall meet Table 1.
7	耐振动性 Vibration test	振动频率10~55Hz,1.5mm全振幅,XYZ 三个方向各4小时试验后,测试蜂鸣器.试验后符合表1要求. Buzzer shall be measured after being applied vibration of amplitude of 1.5mm with 10 to55Hz band of vibration frequency to each of 3 perpendicular directions for 4hours.The measured value shall meet Table 1.
8	可焊性 Solderability	先将蜂鸣器的插针浸入松香液5秒钟,然后 浸入+260 ±5℃熔融的锡槽中3 ±0.5秒.试验后插针表面90%以上 被焊锡润湿.(插针的端面). Lead terminals are immersed in rosin for 5 seconds and then immersed in Buzzer bath of +260 ±5℃ for 3 ±0.5 seconds.Specification:90 %min.lead terminals shall be wet with Buzzer (Except the edge of terminal).
9	插针强度 Terminal Strength Pulling	分别在每个插针的轴向施加9.8牛顿的静荷 重10秒.试验后插针没有断开和 可见的损伤. The force 10 seconds of 9.8N is applied to each terminal in axial direction.Specification No visible damage and cutting off.

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7. 环境性能 Environmental Characteristics

	Item	Specification
1	高温放置 Leave test in high temperature	放置于温度 $+70 \pm 2^\circ\text{C}$ 的烘箱内96小时, 然后取出, 在常温下放置4小时后, 测试蜂鸣器。试验后符合表1要求。After being placed in a chamber with $+70 \pm 2^\circ\text{C}$ for 96 hours and then being placed in natural condition for 4 hours, Buzzer shall be measured. Specification The measured value shall meet Table 1.
2	低温放置 Leave test in low temperature	放置于温度 $-30 \pm 2^\circ\text{C}$ 的制冷箱内96小时, 然后取出, 在常温下放置4小时后, 测试蜂鸣器。试验后符合表1要求。After being placed in a chamber with $-30 \pm 2^\circ\text{C}$ for 96 hours and then being placed in natural condition for 4 hours, Buzzer shall be measured. Specification The measured value shall meet Table 1.
3	湿中放置 Leave test in humidity	放置于90%~95% R.H., 温度 $+40 \pm 2^\circ\text{C}$ 的环境试验箱内96小时, 然后取出, 在常温下放置4小时后, 测试蜂鸣器。试验后符合表1要求。After being placed in a chamber with 90 %~95% R.H. at $+40 \pm 2^\circ\text{C}$ for 96 hours and then being placed in natural condition for 4 hours, Buzzer shall be measured. The measured value shall meet Table 1.
4	温度循环 Cycle test for temperature	先放置于温度 $-30 \pm 2^\circ\text{C}$ 的试验箱内30分钟后放置于室温($+20^\circ\text{C}$)15分钟后, 放置于 $+70 \pm 2^\circ\text{C}$ 的烘箱内30分钟, 再放置于室温($+20^\circ\text{C}$)15分钟. 经过以上循环5次, 在常温下放置4小时后, 测试蜂鸣器。试验后符合表1要求。After being placed in a chamber at $-30 \pm 2^\circ\text{C}$ for 30 minutes, Buzzer shall be placed at room temperature ($+20^\circ\text{C}$). After 15 minutes at this temperature, Buzzer shall be placed in a chamber at $+70 \pm 2^\circ\text{C}$. After 30 minutes at this temperature, Buzzer shall be returned to room temperature ($+20^\circ\text{C}$) for 15 minutes. After 5 above cycles, Buzzer shall be measured after being placed in natural condition for 4 hours. The measured value shall meet Table 1.

在上述实验终了后(试样在常温下放置4小时以上)满足以下:

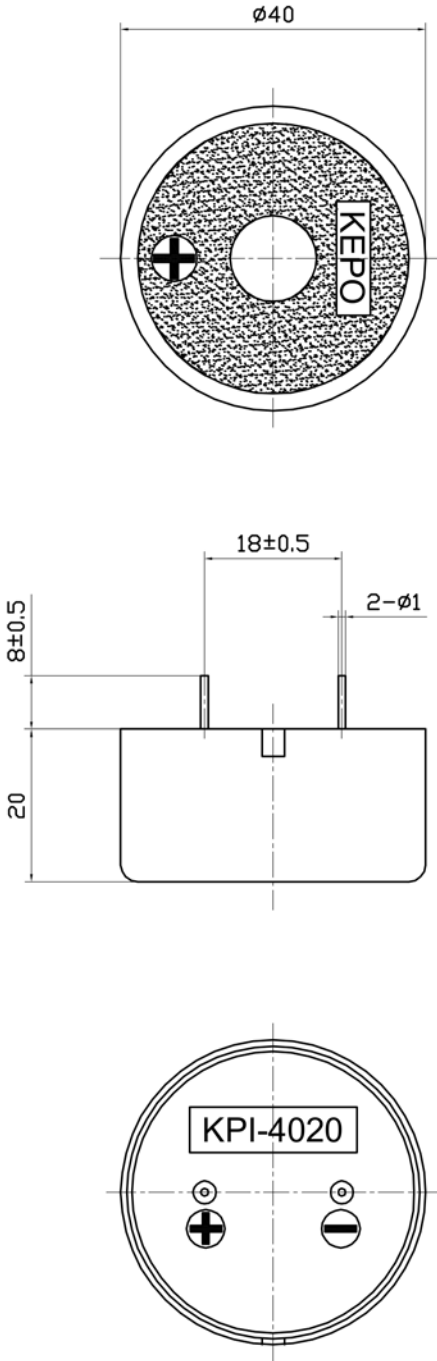
- 1、外观没有异常;
- 2、插针焊锡附着性表面95%以上;
- 3、性能满足以下规定:

表1 Table 1

项 目 Item	试验后变化量 Specification after test
声压级 Sound Pressure Level	初始值 $\pm 10\text{dB}$ Initial Value $\pm 10\text{dB}$
静电容量 Capacitance	初始值 $\pm 20\%$ 以内 Initial Value $\pm 20\%$

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8. Dimensions



FIRST ANGLE PROJECTION

UNIT : mm
Tolerance : ± 0.5

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9. 包装标准 Packaging Standard

产品的外包装是纸箱, 它应该清楚的标明型号, 数量, 出厂检验批号.
在运输及储存的过程中, 产品必须不会受到机械损伤.

Each minimum package unit of products shall be in a carton box and it shall be clearly marked with Part Number, quantity and outgoing inspection number.

There shall be no mechanical damage on products during transportation and/or in storage.

10. 警告 Cautions

如果产品使用于下列高可靠性的装置时, 请与我们联系, 以免对人的生命, 财产和身体造成损害.

Please contact us before using our products for the undermentioned applications requiring especially high reliability in order to prevent defects which might directly cause damage to other party's life, body or property (listed below).

- (1) Aircraft equipment 飞行设备
- (2) Aerospace equipment 航天设备
- (3) Undersea equipment 潜水设备
- (4) Medical equipment 医疗设备
- (5) Transportation equipment (automobiles, trains, ships) 交通设施
- (6) Traffic signal equipment 交通信号设备
- (7) Disaster prevention/crime prevention equipment 防灾害/防犯罪设备
- (8) Data-processing equipment 数据处理设备
- (9) Applications of similar complexity or reliability requirements comparable to the applications listed in the above 以及与上述相类似或可靠性要求更高的设备

11. 注意事项 Cautions for Use

11.1 如果产品所承受的机械应力超过规定的值, 元件可能被破坏.

The component may be damaged if mechanical stress over this specification is applied.

11.2 请注意保护工作电路不会因失误, 跌落和温度变化而产生浪涌电压.

Please pay attention to protect operating circuit from surge voltage provided by something of force such as failing, shock and temperature changing.

11.3 请注意永远不要给压电声响器施加直流电压.

Please pay attention never to be applied DC voltage to piezo sounder.

11.4 该声响器不适合洗涤, 因为它不密封.

Washing of the component is not acceptable. Because it is not sealed.

11.5 在使用烙铁的情况下, 应注意烙铁头的温度应该保持在 +350℃ 以下, 并且焊接时间控制在3秒内.

In case of using solder iron for soldering, the top of soldering iron's temperature should be kept less than +350 °C. Moreover the soldering time should be also kept with in 3seconds.

