# **SPECIFICATION**

| Customer:                             |                   |             |  |  |  |
|---------------------------------------|-------------------|-------------|--|--|--|
| Applied To:                           | Applied To:       |             |  |  |  |
| Product Nan                           | ne: Magn          | etic Buzzer |  |  |  |
| Model Name                            | : KPX-G1          | 206A        |  |  |  |
| Drawing No.                           | : KP3.843         | 3.717R      |  |  |  |
| Compliance                            | with ROHS         |             |  |  |  |
| Signature of Approva                  | al                |             |  |  |  |
|                                       |                   |             |  |  |  |
|                                       |                   |             |  |  |  |
|                                       |                   |             |  |  |  |
|                                       |                   |             |  |  |  |
|                                       |                   |             |  |  |  |
| Signature of KEPO                     | Signature of KEPO |             |  |  |  |
| Approved by Checked by Issued by Date |                   |             |  |  |  |
|                                       |                   |             |  |  |  |
|                                       |                   |             |  |  |  |
| <b>空冰</b>                             |                   |             |  |  |  |

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|                                   | Revision No. | 1.0          |
| Model No.: KPX-G1206A             | Drawing No.  | KP3.843.717R |

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# 1. 范围 Scope

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

本规格书适用于电磁式蜂鸣器,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,请与我们取得联系。

### 2. 概要 General

2.1 Out-Diameter: Ø12mm

外径:

Ø12mm

2.2 Height

: 9.5mm

高度:

9.5 mm

2.3 Weight

: 2 g.

重量:

2克

2.4 Case Material/Color :

PBT/Black

壳体材质/颜色:

PBT/黑

2.5 According to the No.7 of RoHS Exemptions, lead-based solder alloys containing 85% by weight or more lead(Sn10Pb90)

根据"欧盟RoHS指令豁免条款"第7条规定,使用了铅含量超过85%的锡铅合金焊料(Sn10Pb90)

### 3. 额定极限条件 Maximum Rating

|     | 项目 Item                               | 规格 Specification |
|-----|---------------------------------------|------------------|
| 3.1 | 工作温度范围<br>Operating Temperature Range | -20 ∼ +70℃       |
| 3.2 | 储存温度范围<br>Storage Temperature Range   | -30 ∼ +80℃       |
| 3.3 | 额定电压<br>Rated Voltage                 | 6VDC             |
| 3.4 | 工作电压<br>Operating Voltage             | 4∼8VDC           |

#### 4. 电性能 **Electrical Characteristics**

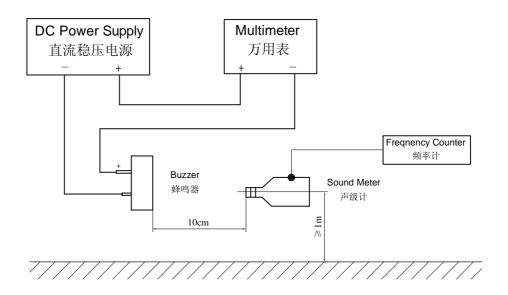
|     | 项目 Item                          | 规格 Specification |
|-----|----------------------------------|------------------|
| 4.1 | Max.Rated Current<br>额定电流        | 40mA/6VDC        |
| 4.2 | Resonant Frequency<br>谐振频率       | 2.3±0.3KHz       |
| 4.3 | Min.Sound Pressure Level<br>最小声压 | 85dB/6VDC/10cm   |
| 4.4 | Response Time<br>响应时间            | 50ms             |
| 4.5 | Tone Nature<br>音调                | Continuous (直音)  |

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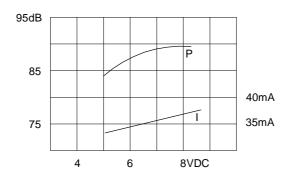
### 5.测试图和曲线图 Measurement Block Diagram & Response Curve

#### 5.1 声压测试 S.P.L. Measuring

输入信号:6VDC Input Signal:6VDC



#### 5.2 曲线图 Response Curve



#### 5.3 测试环境 Measuring Condition

温度+25±3℃,湿度60±10%R.H.标准测试状态,在没有疑问的场合,可以在温度+5~+35℃,湿度45~85%R.H.的范围内测试.

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

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# 6. 机械性能 Physical Characteristics

|     | 实验项目<br>Item                         | 实验条件<br>Test Condition  | 实验后规格<br>Specification  |
|-----|--------------------------------------|---|---|
| 6.1 | 耐冲击性<br>Shock                        | 峰值加速度 980m/s², 正向方波, XYZ三个方向各3次冲击实验后, 进行测试。 Sounder shall be measured after being applied shock(980m/s²) for each three mutually perpendicular directions to each of 3 times by half square wave.   |   |
| 6.2 | 耐振动性<br>Vibration<br>Resistant       | 振动频率 10~55 Hz,1.5mm 全振幅,XYZ<br>三个方向各2小时试验后,进行测试。<br>Sounder shall be measured after being applied<br>vibration of amplitude of 1.5mm with 10 to55Hz band of<br>vibration frequency to each of 3 perpendicular directions<br>for 2 hours.  | 符合表1的要求   |
| 6.3 | 耐焊接性<br>Soldering Heat<br>Resistance | 将产品的插针插入(插至距产品壳体1.5mm<br>处为止) +300±5℃的焊锡槽3±0.5秒或+260<br>±5℃的焊锡槽10±1秒,然后在常温中放置4<br>小时后,进行测试。  Lead terminal are immersed up to 1.5mm from<br>sounder's body in solder bath of +300±5℃ for 3±0.5<br>seconds or±260±5℃ for 10±1 seconds, and then<br>sounder shall be measured after being placed in natural<br>condition for 4 hours. | The measured value shall meet Table 1.  |
| 6.4 | 可焊性<br>Solderability                 | 先将产品的插针浸入松香液5秒钟,然后浸入+260±5℃熔融的锡槽中3±0.5秒.  Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +260±5℃ for 3±0.5 seconds.   | 插针表面90%以<br>上被焊锡润湿.(插<br>针的段面除外)<br>90% min. lead<br>terminals shall be<br>wet with solder.<br>(Except the edge<br>of terminal) |
| 6.5 | 插针强度<br>Terminal<br>Strength Pulling | 分别在每个插针的轴向施加 9.8牛顿的静荷重10秒.  The force 10 seconds of 9.8N is applied to each terminal in axial direction.  | 插针没有断开和<br>可见的损伤<br>No visible<br>damage and<br>cutting off   |

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# 7. 环境性能 Environmental Characteristics

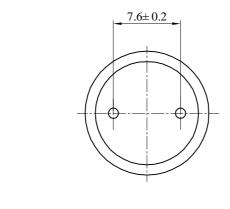
|     | 实验项目<br>Item                       | 实验条件<br>Test Condition   | 实验后规格<br>Specification                      |
|-----|------------------------------------|--|---|
| 7.1 | 高温放置<br>Dry Heat Test<br>(Storage) | 将产品放置于温度 +80 ± 2 ℃ 的烘箱内240<br>小时,然后取出,在常温下放置 4小时后,进<br>行测试。<br>After being placed in a chamber with +80 ± 2 ℃ for 240<br>hours and then being placed in natural condition for 4<br>hours, sounder shall be measured.   |   |
| 7.2 | 低温放置<br>Cold Test<br>(Storage)     | 将产品放置于温度-30±2℃的制冷箱内240小时,然后取出,在常温下放置4小时后,进行测试。  After being placed in a chamber with -30 ±2℃ for 240 hours and then being placed in natural condition for 4 hours, sounder shall be measured.  | 符合表1的要求<br>The measured<br>value shall meet |
| 7.3 | 耐湿性<br>Humidity                    | 将产品放置于 90%~95% R.H.,温度+40<br>±2℃的环境试验箱内240小时,然后取出,<br>在常温下放置4小时后,进行测试。<br>After being placed in a chamber with 90 to<br>95%R.H. at +40±2℃ for 240 hours and then<br>being placed in natural condition for 4 hours,<br>sounder shall be measured.   | Table 1.                                    |
| 7.4 | 温度循环<br>Temperature<br>Cycle       | 将产品先放置于温度 -30±2℃的制冷箱内 30分钟,然后放置于室温 (+20℃)15分钟后,放置于+80±2℃的烘箱内 30分钟,再放置于室温 (+20℃)15分钟。<br>经过以上循环5次,在常温下放置 4小时后,进行测试。  After being placed in a chamber at -30±2℃ for 30 minutes, sounder shall be placed at room temperature (+20℃). After 15 minutes at this temperature ,sounder shall be placed in a chamber at +80±2℃. After 30 minutes at this temperature, sounder shall be returned to room temperature (+20℃) for 15 minutes.  After 5 above cycles, sounder shall be measured after being placed in natural condition for 4 hours. |   |

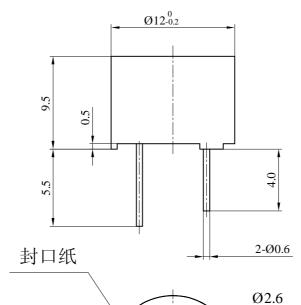
### 表 1 Table 1

| 项 目                  | 试验后变化量                   |
|----------------------|--------------------------|
| Item                 | Specification after test |
| 声压级                  | 初始值±10dB                 |
| Sound Pressure Level | Initial Value±10dB       |

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## 8. Dimensions







FIRST ANGLE PROJECTION

 $\Leftrightarrow$ 

UNIT : Tolerance :

 $\begin{array}{c} \text{mm} \\ \pm\,0.5 \end{array}$ 

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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,请与我们取得联系,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'slife, body or property(listed below).

- (1)Aircraft equipment 飞行设备
- (2)Aerospace equipment 航天设备
- ③Undersea 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 该产品不适合洗涤,因为它不密封.

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

**11.4** 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  $^{\circ}$ C. Moreover the soldering time should be also kept with in 3seconds.

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| 12. Revision                      |            |      |              |             |              |  |  |  |
| Rev.<br>No.                       | DATE       | PAGE | DESCRIP      | TION        | SIGN         |  |  |  |
| 1.0                               | 2007.12.08 | 9    | primary      |             |              |  |  |  |
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