

SPECIFICATION

Customer :

Applied To :

Product Name : Magnetic Transducer

Model Name : SMT-G5020

Drawing No. : KP3.840.926R

Compliance with ROHS

Signature of Approval

| |
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Signature of KEPO

| Approved by | Checked by | Issued by | Date |
|-------------|------------|-----------|------|
| | | | |



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| | Drawing No. | KP3.840.926R |
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1. Scope

This product specification is applied to the magnetic transducer 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声响器，通常它用在系统中做报警或提示的声响器用，如果将该产品用于其它领域，请与我们联系。

2. General

2.1 Out-Diameter : 5.0×5.0mm

外径: 5.0×5.0mm

2.2 Height : 2.0 mm

高度: 2.0 mm

2.3 Weight : 0.2g

重量: 0.2g

2.4 Operating Temperature range:

-30~+70°C without loss of function

工作温度: -30~+70°C

2.5 Store Temperature range:

-40~+85°C without loss of function

储藏温度: -40~+85°C

3. Electrical and Acoustic Characteristics.

Test condition : 15 ~ 35 °C, 25% ~ 85% RH, 860~1060 mbar

测试条件: 15~35 °C, 25%~85%RH, 860~1060mbar

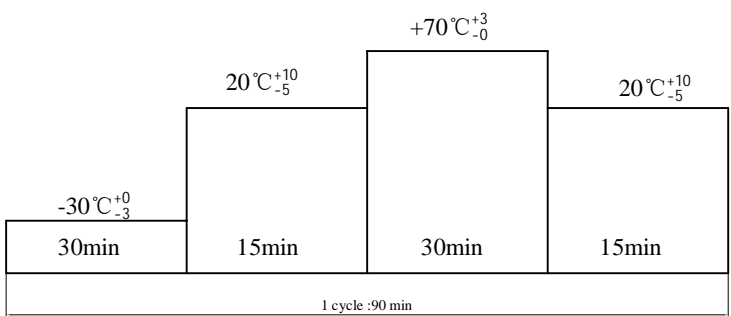
| | Items 项目 | Specification 规格 |
|---|-----------------------------------|---------------------|
| 1 | Rated Voltage 额定电压 | 3V |
| 2 | Operating Voltage 工作电压 | 2~4V |
| 3 | Max. Rated Current 额定电流 | 100mA /3V |
| 4 | Resonant Frequency 谐振频率 | 4000Hz |
| 5 | Min. Sound Pressure Level 额定声压 | 78dB/3V/10cm |
| 6 | Coil Resistance 直流阻抗 | 12±2 Ω |
| 7 | Coil Impedance 交流阻抗 | 40 Ω |
| 8 | Case Material/Color 壳体材质/颜色 | PBS/Black |

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4. Reliability Test

After test(1~7item), the transducer S.P.L . difference shall be within $\pm 10\text{dB}$, and the appearance not exist any change to be harmful to normal operation(e.g.cracks,rusts,damages and especially distortion).

在1-7项试验后，声响器的声压变化值在 $\pm 10\text{dB}$ 之内，外观无变化（例如：开裂、生锈、损伤、变形等现象）。

| | Item | Specification |
|---|------------------------------------|---|
| 1 | Heat Resisance 高温试验 | Storage in 85°C test box for 96 hours then expose to the room temperature for 2 hours 将产品置于 85°C 试验箱中96小时，然后在常温下放置2小时后检测产品 |
| 2 | Cold Resistance 低温试验 | Storage in -40 test box for 96 hours then expose to the room temperature for 2 hours.. 将产品置于 -40°C 试验箱中96小时，然后在常温下放置2小时后检测产品 |
| 3 | Life test in the room temp 寿命试验 | Operate sound transducer continuously for 1000 hours with applying 3.6V,square wave, $\frac{1}{2}$ duty,2670HZ,using the test circuit as perattached drawing. 产品在额定的条件下连续工作1000小时后检测产品 |
| 4 | Temperature Cycle 温度循环试验 | Make this test for 5 cycle without applying power ,then expose to the room temperature for 2 hous. 产品在不通电的条件下按以下要求循环5次然后在常温下放置2小时后检测产品  |

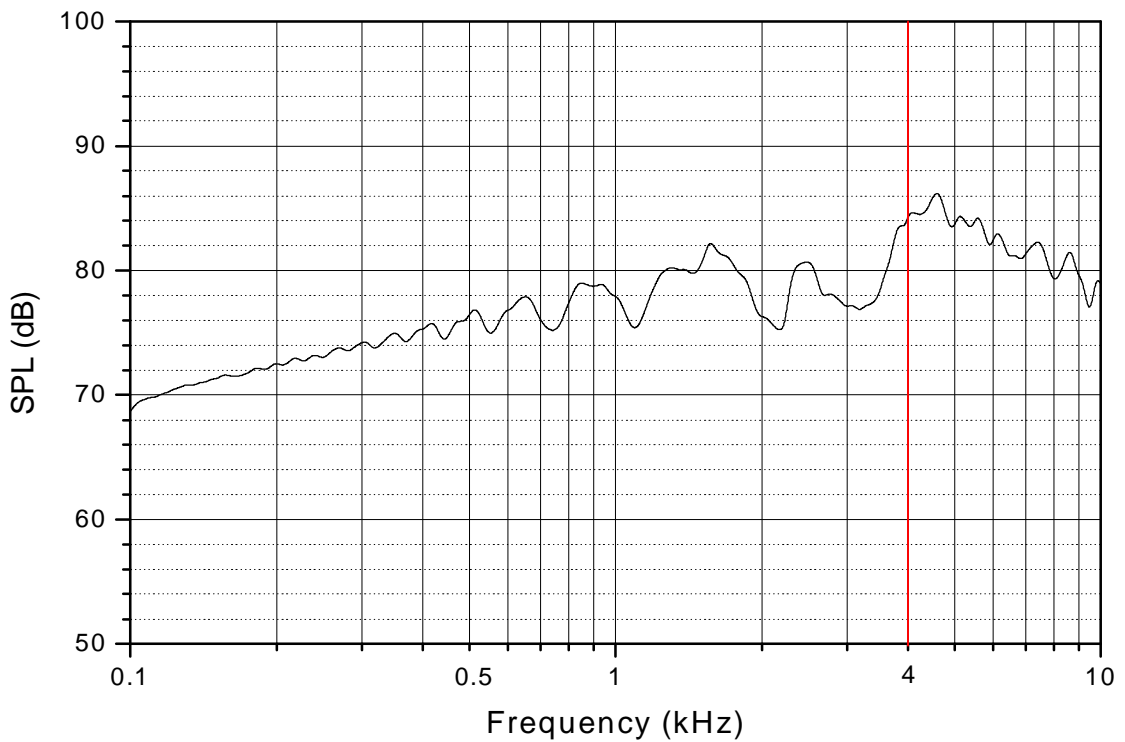
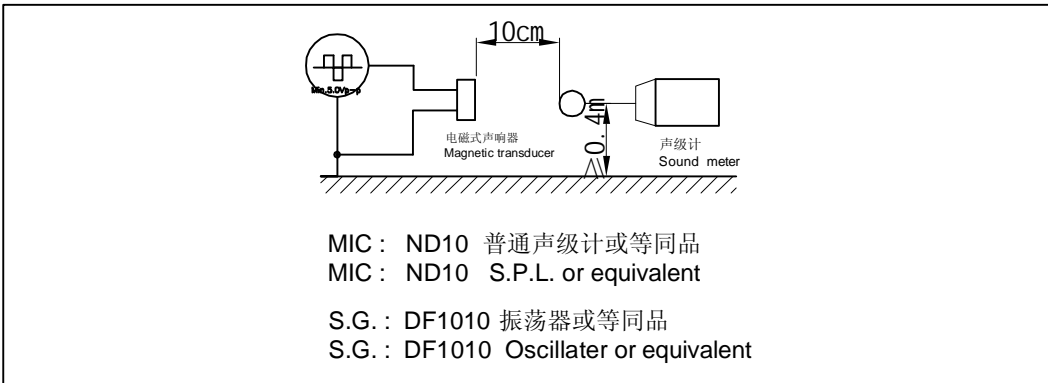
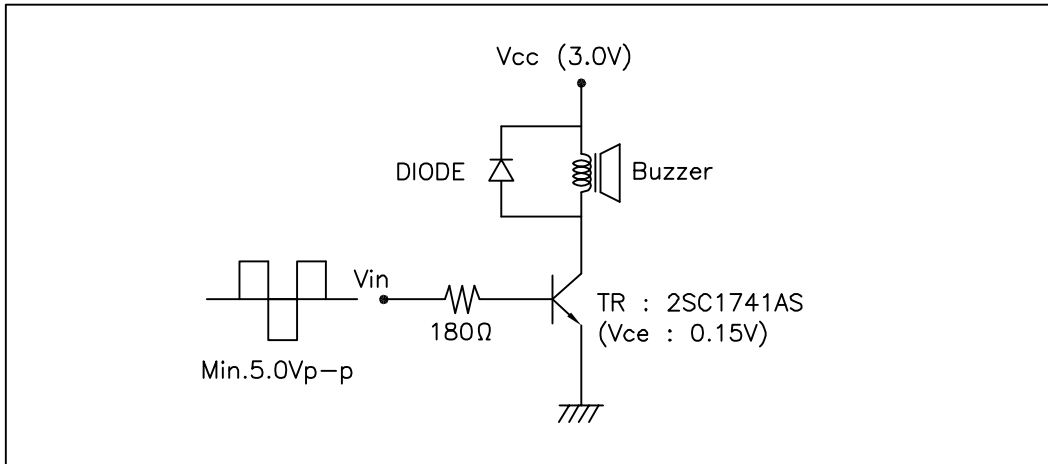
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4. Reliability Test

| | Item | Specification |
|---|-----------------------------------|--|
| 5 | Temp./Humidity Resistance 湿热试验 | <p>Maki this test for 10 cycles without applying power, then expose to the room temperature for 2 hours. 产品在通电的情况下按要求循环10次，然后在常温下放置2小时后检测产品</p> |
| 6 | Vibration test 振动试验 | <p>Make this test for the directions of X, Y and Z for 2 hours each (total 6 hours). To-and-fro sweep time is 1 minute. Dimension of PCB: 60X90X1.6t(mm) 产品在X、Y、Z三个方向按要求各振动2小时后检测产品</p> |
| 7 | Drop test 跌落试验 | <p>Fix sound transducer on the P.C.B with polyester film (t=0.2mm, gross weight: 100g) and the height of 120cm to the direction of six surface for 3 cycles. 将产品固定在印制板上，在高度为120 CM、6个不同表面各跌落1次，共循环3次后检测产品</p> |
| 8 | Solderability 可焊性试验 | <p>The part shall be dipped into the soldering bath conditioned as follows; -Solder temp: 260 ± 5°C -Soaking time: 2 ± 0.5sec 将产品浸入260 ± 5°C的锡炉中2 ± 0.5秒后检测产品</p> |
| 9 | Judgment at reliability 判定标准 | <p>1) No significant change both in appearance and structure 2) Change in sound output should be within ± 10dB. 3) No abnormality in operation and tone quality is allowed. 1) 外观无明显变化 2) 声压变化在初始值的 ± 10dB 以内 3) 音质无异常</p> |

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5. Measurement Block Diagram & Response curve



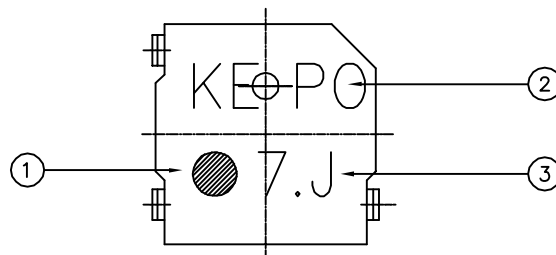
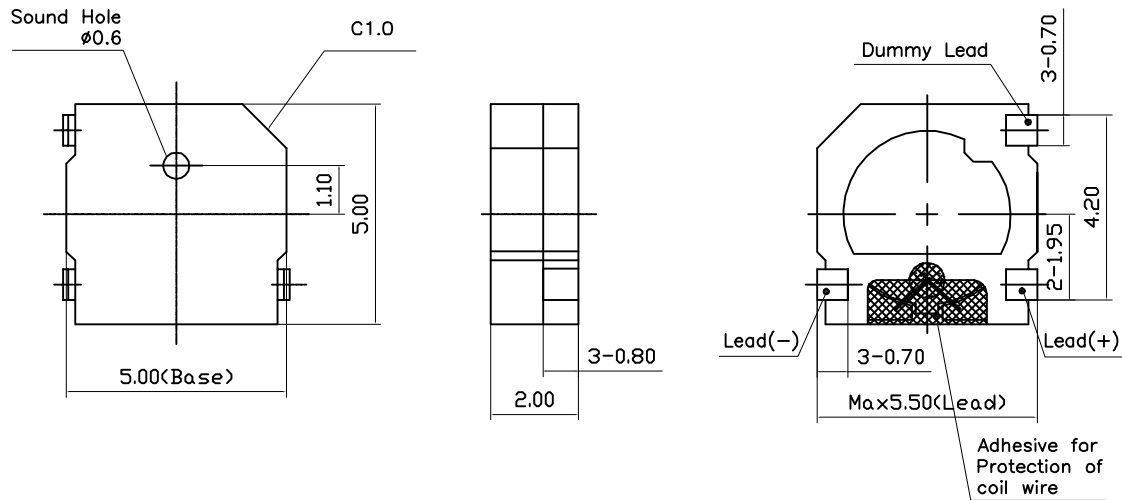
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6. Structure

| No | Part Name | Unit | Material |
|----|--------------|------|-----------|
| 1 | UPPER CASE | EA | LCP 6130 |
| 2 | LOWER CASE | EA | LCP 6130 |
| 3 | YOKE | EA | Pure-Fe |
| 4 | COIL | EA | 3DS-FC |
| 5 | MAGNET | EA | Sm-Co |
| 6 | RESONATOR | EA | PERMALLOY |
| 7 | MAGNET PLATE | EA | PERMALLOY |
| 8 | TERMINAL | EA | PBS |
| 9 | SOLDER | EA | Sn95%Ag5% |
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7. Dimensions

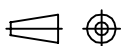


- ① Polarity Mark (+)
- ② Maker Name
- ③ Date code

The first digit is the number of the year. The last digit is the month.

A- January through J - October

FIRST ANGLE PROJECTION

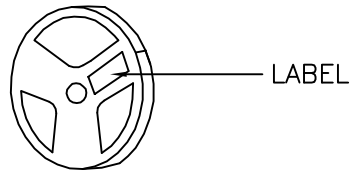


UNIT : mm
Tolerance : ± 0.2

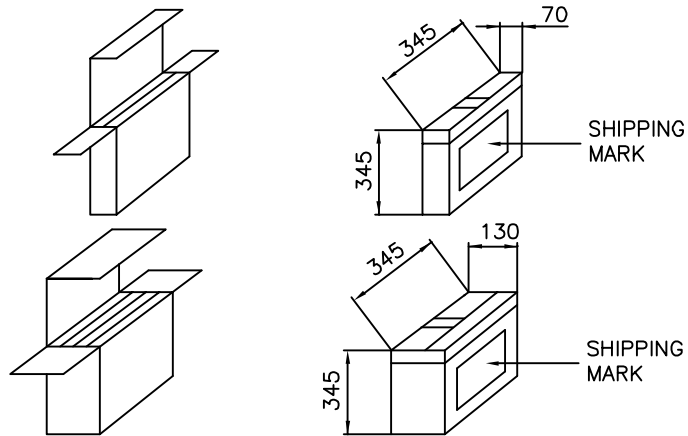
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8. Packing

8-1. 2000 pcs per 1 roll by using the tapping M/C.



8-2. 2 rolls or 5 rolls per 1 double(thick) carton box packed by polypropylene tape.



8-3. Content of the label

- Model No.
- Lot No.
- Buyer Parts No.
- Quantity
- Date
- Vendor

8-4. The label to stick

| | |
|-----------|-----------|
| P/O No. | |
| Model No. | |
| Lot No. | |
| Part No. | |
| Quantity | pcs |
| Date | 200 . . . |
| Vendor | . |

