

SPECIFICATION

Customer : QUARTZ-1

Applied To :

Product Name : Magnetic Buzzer

Model Name : KPMB-G2300-4231




Drawing No. : OEM4231R

Compliance with ROHS(本品符合ROHS指令)

Signature of Approval

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Signature of KEPO

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

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1. Scope

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

本规格书适用于微型喇叭，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 Form : Ø23mm

外形 : Ø23mm

2.2 Height : 10mm

高度 : 10 mm

2.3 Weight : 12 g

重量 : 12克

2.4 Operating Temperature range:

-20~+60°C without loss of function

工作温度: -20~+60°C

Store Temperature range:

-30~+70°C without loss of function

储藏温度: -30~+70°C

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. 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 Norse Power 额定功率 | 0.15W |
| 2 | Max.Input Power 最大输入功率 | 0.3W |
| 3 | Coil Resistance 直流阻抗 | 8± 1.2 Ω |
| 4 | Rated Frequency Range 频率范围 | 700~5000Hz |
| 5 | Resonant Frequency 谐振频率 | 1200± 200Hz |
| 6 | Min.Sound Pressure Level 额定声压 | 70dB at 1.2KHz 1.1Vrms Sine Wave/10cm |
| 7 | Case Material/Color 壳体材质/颜色 | ABS/Black |

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4. Reliability Test

After test(1~7item), the Buzzer S.P.L . difference shall be within $\pm 10\text{dB}$, Frequency difference shall be within $\pm 0.5\text{KHz}$. 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，蜂鸣器的声压变化值在 $\pm 10\text{dB}$ 之内，频率变化在 $\pm 0.5\text{KHz}$ 之内。外观无变化（例如：开裂、生锈、损伤、变形等现象）。

| | Item | Specification |
|---|------------------------------------|---|
| 1 | High Temperature Test 高温试验 | <p>After being placed in a chamber with $+70 \pm 2^\circ\text{C}$ for 240 hours and then being placed in natural condition for 4 hours, Buzzer shall be measured.Specification The measured value shall meet Table 1.</p> <p>放置于温度$+70 \pm 2^\circ\text{C}$的烘箱内240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。</p> |
| 2 | Low Temperature Test 低温试验 | <p>After being placed in a chamber with $-30 \pm 2^\circ\text{C}$ for 240 hours and then being placed in natural condition for 4 hours, Buzzer shall be measured.Specification The measured value shall meet Table 1.</p> <p>放置于温度$-30 \pm 2^\circ\text{C}$的制冷箱内240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。</p> |
| 3 | Leave test in humidity 湿中放置 | <p>After being placed in a chamber with 90 %~95% R.H. at $+40 \pm 2^\circ\text{C}$ for 240 hours and then being placed in natural condition for 4 hours, Buzzer shall be measured.The measured value shall meet Table 1.</p> <p>放置于 90%~95% R.H.,温度$+40 \pm 2^\circ\text{C}$的环境试验箱内240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。</p> |
| 4 | Cycle test for temperature 温度循环 | <p>After being placed in a chamber at $-20 \pm 2^\circ\text{C}$ 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 $+60 \pm 2^\circ\text{C}$. After 30 minutes at this temperature, Buzzer shall be returned to room temperature ($+20^\circ\text{C}$) for 15 minutes.</p> <p>After 5 above cycles, Buzzer shall be measured after being placed in natural condition for 4 hours.The measured value shall meet Table 1.</p> <p>先放置于温度$-20 \pm 2^\circ\text{C}$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$+60 \pm 2^\circ\text{C}$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。</p> |

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4. Reliability Test

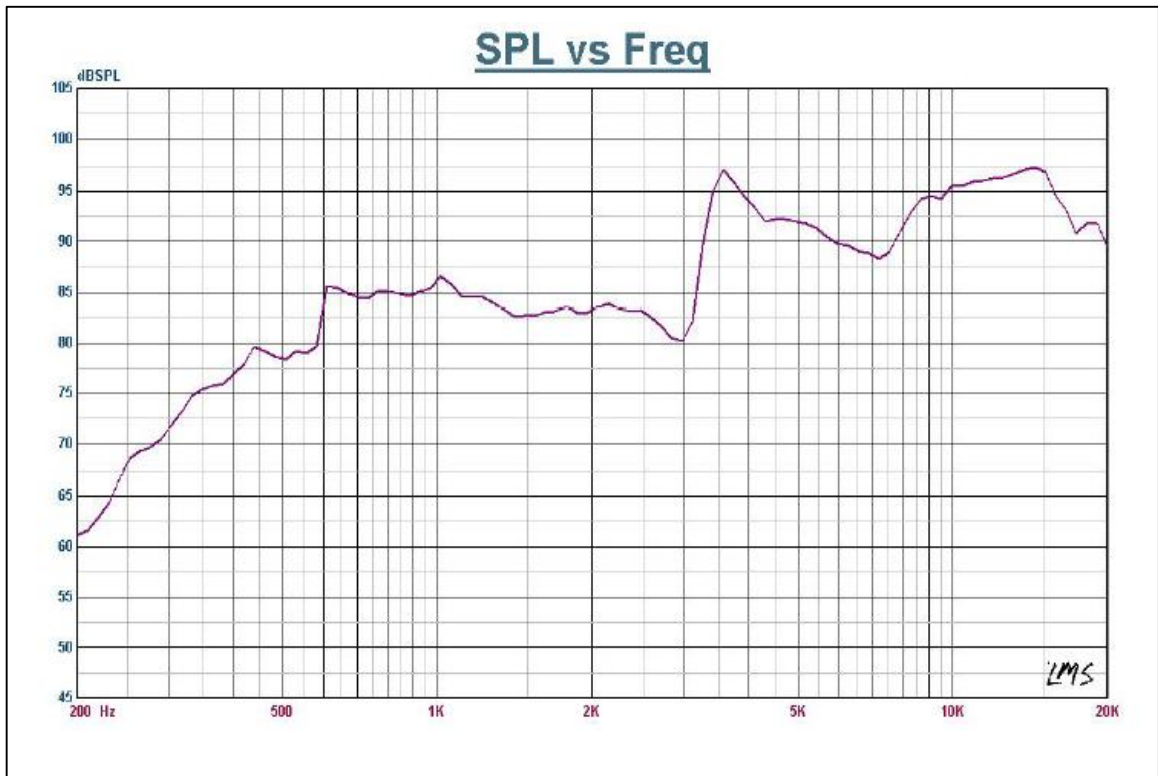
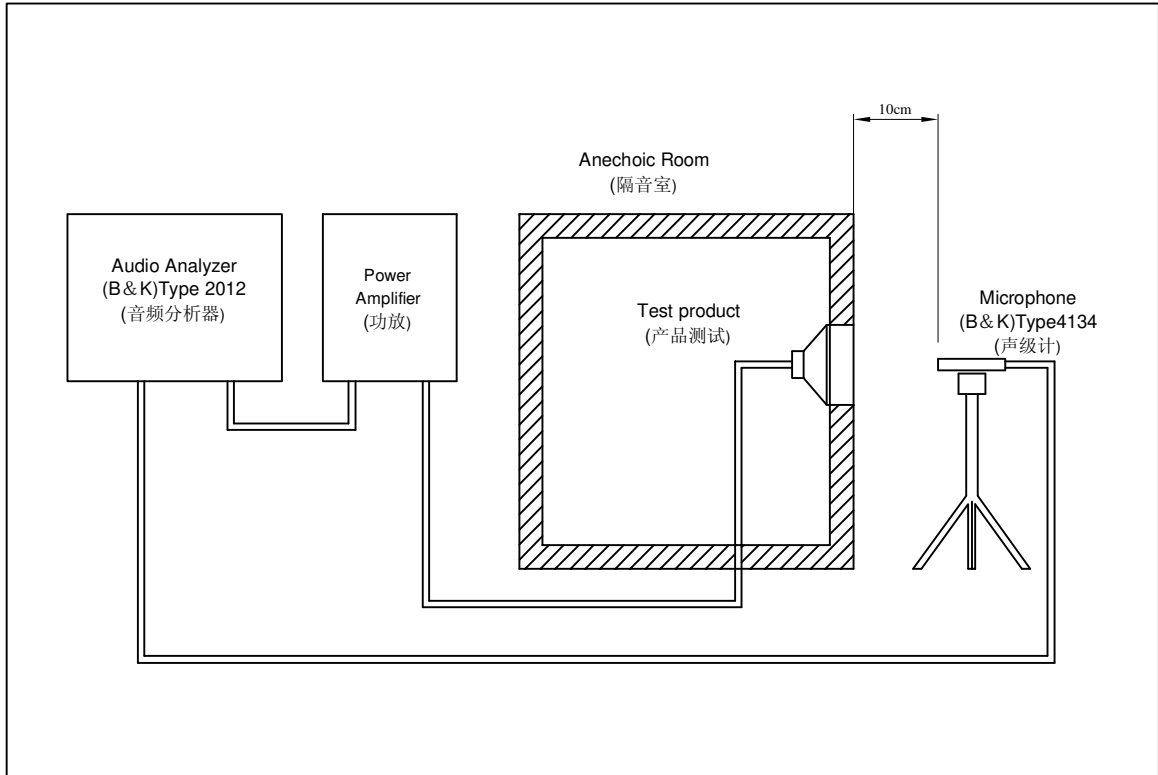
| | Item | Specification |
|---|-----------------------------------|---|
| 5 | 耐焊接性 Heat-proof for solder | <p>将蜂鸣器的插针插入(插至距蜂鸣器壳体1.5mm处为止) +300 ±5℃的焊锡槽3 ±0.5 秒或+260 ±5℃的焊锡槽 10 ±1秒,然后在常温中放置4小时后,测试蜂鸣器.试验后符合表1要求.</p> <p>Lead terminal are immersed up to 1.5mm from Buzzer body in Buzzer bath of +300 ±5℃ for 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.</p> |
| 6 | 耐振动性 Vibration test | <p>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.</p> <p>Buzzer shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55Hz band of vibration frequency to each of 3 perpendicular directions for 4hours.The measured value shall meet Table 1.</p> |
| 7 | 可焊性 Solderability | <p>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.(插针的段面).</p> <p>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).</p> |
| 8 | 插针强度 Terminal Strength Pulling | <p>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.</p> <p>The force 10 seconds of 9.8N is applied to each terminal in axial direction.Specification No visible damage and cutting off.</p> |

表1
Table 1

| | 项目 Item | 判定基准 Determinant norm |
|--|------------|--|
| | | 在初始值的 ± 10dB以内 ± 10dB based on initial value |
| | | 在初始值的 ± 0.5KHz以内 ± 0.5KHz based on initial value after expose 4hours at normal temperature |

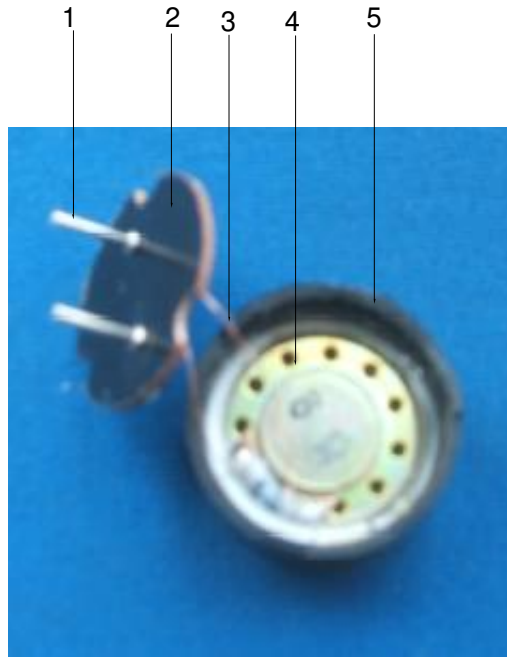
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5. Measurement Block Diagram & Response curve



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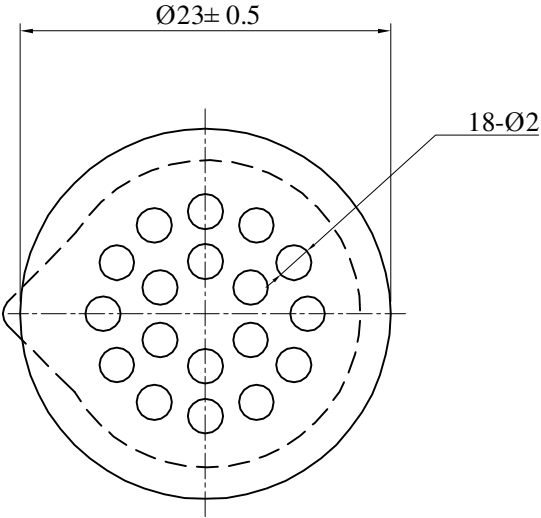
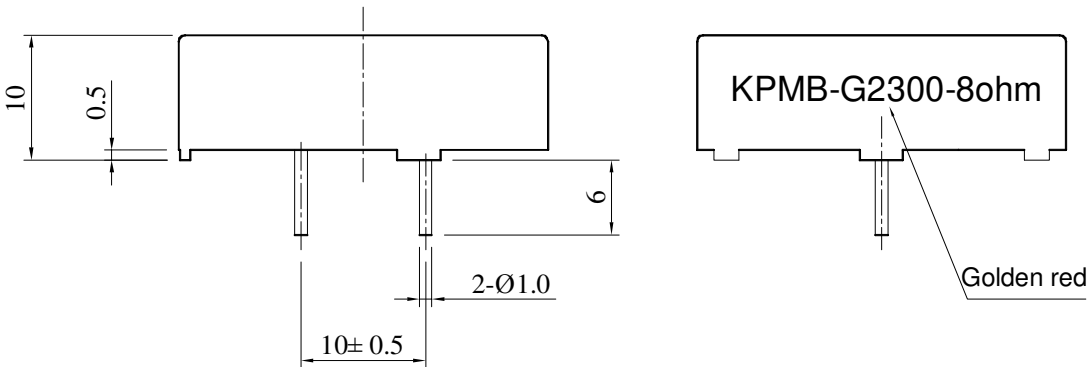
6. Structure



| | | | | |
|-----|-----------------|------|----------------|--------------|
| 5 | Housing 壳体 | 1 | ABS | |
| 4 | Speaker 喇叭 | 1 | — | |
| 3 | Coil 漆包线 | 1 | QA-1 | |
| 2 | PCB 印制板 | 1 | — | |
| 1 | Pin 插针 | 2 | H62 | |
| No. | Part Name 型号 | Q'TY | Material 材质 | Remark 备注 |

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7. Dimensions



FIRST ANGLE PROJECTION

UNIT : mm
Tolerance : ±0.5

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8. Packing



QTY: 1000Pcs
460x295x350mm

