

# 规格书

## Specification

品名  
Model name

# HYT-09042

**PROPRIETARY**  
Huayu Electronic co.,Ltd.

**CONFIDENTIAL**  
Huayu Electronic co.,Ltd.

|                |  |
|----------------|--|
| Version #      | Spec V1.0                                  |
| 制作日期<br>Date   | 2019/4/01                                  |
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1.适用范围：本规范适用于 HYT-09042 3v 蜂鸣器。

This specifications apply the HYT-09042 3v buzzer.

## 2.基本规格/General specification

| 项目/Item  | 规格/Spec    | 条件/Condition   |
|--|------------|--|
| 1<br>额定电压<br>Rated voltage                       | 3VDC       |  |
| 2<br>工作电压<br>Operation voltage                   | 2~5VDC     |  |
| 3<br>声压<br>Sound Pressure Level=SPL              | Min 80dB   | 测试环境：标准状态，标准驱动电路，额定电压  |
| 4<br>平均消费电流<br>Average consumption current       | Max 40mA   | 测试距离：0.1m  |
| 5<br>振荡频率<br>Oscillation frequency               | 2900±300Hz | Standard State,Standard Drive Circuit.<br>Rated voltage,Distance at 0.1m |
| 6<br>响应时间<br>Response time                       | Max 50mS   |  |
| 7<br>工作温度范围<br>Range of operation temperature    | -20~+70°C  |  |
| 8<br>保存温度范围<br>Range of preservation temperature | -30~+85°C  |  |
| 9<br>端子强度<br>Terminal strength                   | 10N        | 拉负荷方向的终端轴<br>Pull load on the direction of the terminal axis             |
| 10<br>外部尺寸<br>Externals size                     | Φ9x4.2     | 参阅附图<br>Refer to the attached drawing                                    |
| 11<br>重量<br>Mass                                 | 1g         |  |

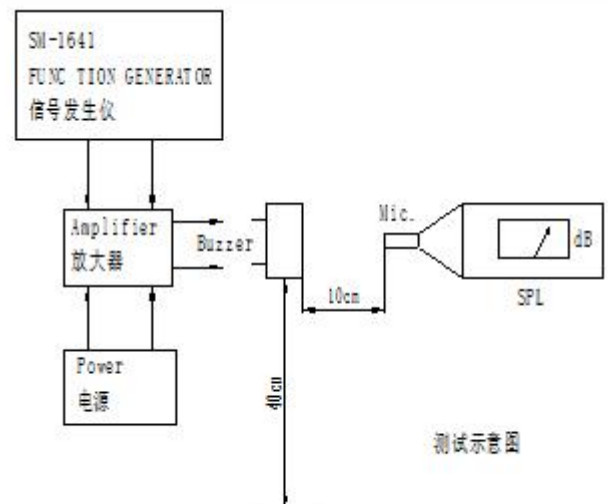
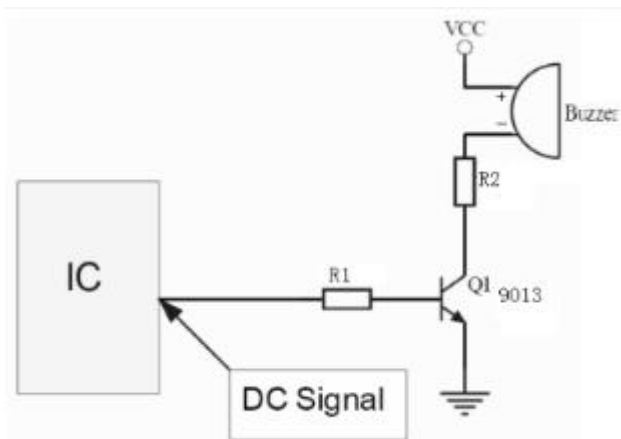
## 3. 电气和声学测试条件/Electrical And Acoustical Measuring Condition

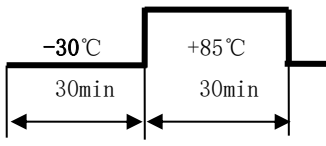
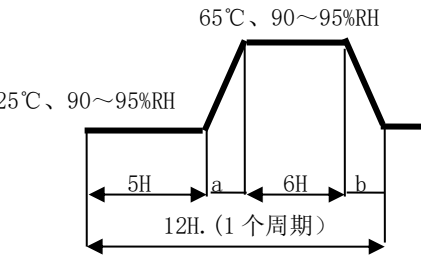
### 驱动电路/Recommended Driving Circuit

Resonant frequency, 1/2 duty cycle. Square wave.

Signal amplitude should be large enough to saturate the transistor.

### 设置 Recommended Setting

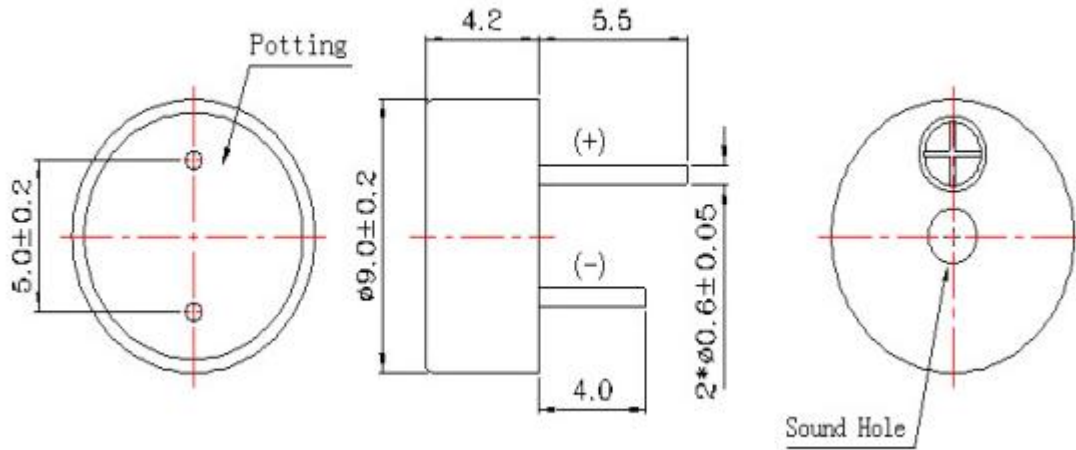


| 项目/Item                                      | 试验条件/Test condition  | 判断标准/Criteria   | 引用规格            |
|--|--|---|-----------------|
| 1<br>高温保存试验<br>High temperature Preservation | +85℃环境下放置 96 小时<br>Exposure to +85℃ for 96 hrs.  | 经过测试,符合规格,没有任何不合格的外观和性能,除了是 75 分贝或以上 (2900±300 Hz)<br>After the test the part shall meet specifications without any degradation in appearance and performance except SPL. SPL shall be 75 dB More. (at 2900±300 Hz) | GB/T<br>2423.2  |
| 2<br>低温保存试验<br>Low temperature preservation  | -30℃环境下放置 96 小时<br>Exposure to -30℃ for 96 hrs.  |   | GB/T<br>2423.1  |
| 3<br>耐温试验<br>Thermal Shock                   |  10 次周期<br>10 cycles  |   | GB/T<br>2423.4  |
| 4<br>温湿度试验<br>Thermal, Humidity Shock        |  10 cycles  |   |                 |
| 5<br>常温寿命试验<br>Ordinary Temp. Life           | 常温 (25℃±10℃) 电压 3VDC 连续测试 1000 小时<br>Driving the sounder at 3VDC for 1000hrs in the room temperature (25℃±10℃)   |   |                 |
| 6<br>高温寿命试验<br>High Temp. Life               | 高温 (+85℃) 电压 3VDC 连续测试 500 小时<br>Driving the sounder at 3VDC for 500hrs in the low temperature (+85℃)  |   |                 |
| 7<br>低温寿命试验<br>Low Temp. Life                | 低温 (-30℃) 电压 3VDC 连续测试 500 小时<br>Driving the sounder at 3VDC for 500hrs in the low temperature (-30℃)  |   |                 |
| 8<br>引脚拉力试验<br>Lead strength                 | 10N 的拉力在引脚上拉 10±1 秒<br>Pull load on the direction of the terminal axis for 10±1 sec.   |   | GB/T<br>2423.29 |
| 9<br>振动试验<br>Vibration                       | 10~55~10Hz 正弦波测试 1 分钟, 振幅 1.52mm 最大 91m/S <sup>2</sup> X, Y, Z 三个方向每个 2 小时总计 6 小时<br>10~55~10Hz Sinewave, Sweep 1 min, Amplitude 1.52mm Max91m/S <sup>2</sup> X, Y, Z 3Direction 2hrs each, Total 6hrs |   | GB/T<br>2423.10 |
| 10<br>自由掉落试验<br>Free drop                    | 70cm 高自由掉落到厚 40mm 的木板上, 每个方向一次<br>Free drop, 70cm height, on wood board (t40mm)<br>X, Y, Z 3Direction 1time each, total 3times.  | 排除弯曲的针<br>Exclude bending of Pin  | GB/T<br>2423.8  |
| 11<br>波峰焊耐热试验<br>Solder heat resistance      | 250±5℃焊接温度。浸泡时间 3±0.2sec<br>Soldering into solderbath: Solder Temp. 250±5℃<br>Soaking Time: 3±0.2sec   | 经过测试,符合规格,没有任何不合格的外观和性能<br>After the test the part  | GB/T<br>2423.28 |
| 12<br>耐洗性试验<br>Washability                   | 溶剂: 去离子水, 溶剂温度: 55±5℃, 浸泡时间: 5±0.5 分钟<br>Solvent: deionized water, Solvent temp: 55±5℃<br>Soaking time: 5±0.5 minutes  | Shall meet specifications without any degradation in appearance and performance   |                 |
| 13<br>引脚可焊性试验<br>Solderability               | 40℃, 相对湿度 90~95%RH 放置 240 小时, 370±5℃焊接温度。<br>浸泡时间: 6±0.5sec。<br>Pretreatment: 40℃, 90~95%RH*240hrs<br>Soldering into solderbath: Solder Temp. 370±5℃<br>Soaking Time: 6±0.5sec                         | 引脚 95%必须覆盖着焊料<br>95% surface of lead pins must be covered with fresh solder and no soldering holes<br>Should be found   | GB/T<br>2423.28 |

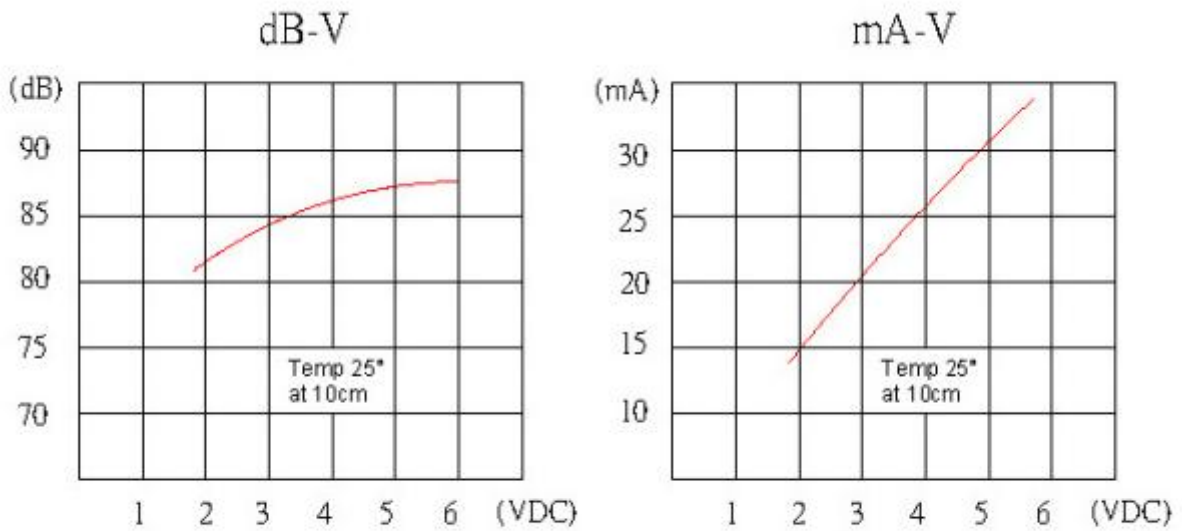
5. 尺寸图/Dimension

(UNT: mm)

Tolerance:  $\pm 0.5\text{mm}$  Except Specified



6. 频率图/Frequency Curve



3Vo-p 50% duty Square wave, 10cm

7. 包装图/Packing Method



QTY:100PCS



QTY:1000PCS



QTY:5000PCS