

# 规格书 Specification

品名  
Model name

## HNT-9042-03

**PROPRIETARY**  
Huaneng Electronic co.,Ltd.

**CONFIDENTIAL**  
Huaneng Electronic co.,Ltd.

Version #	Spec V1.0
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## 江苏华能电子有限公司

*Components Operating Div.  
HuanengElectronic co.,Ltd.*

This specifications apply the HNT-9042-03 buzzer.

2.基本规格/General specification

项目/Item		规格/Spec	条件/Condition
1	额定电压 Rated voltage	3V	
2	工作电压 Operation voltage	2~5V	
3	声压 Sound Pressure Level=SPL	Min 80dB Typical 80dB	测试环境：标准状态，标准驱动电路， 额定电压 测试距离：0.1m Standard State,Standard Drive Circuit. Rated voltage,Distance at 0.1m
4	平均消费电流 Average consumption current	Max 28mA	
5	振荡频率 Oscillation frequency	2700±300Hz	
6	响应时间 Response time	Max 50mS	最低工作电压 Lowest operation voltage
7	工作温度范围 Range of operation temperature	-20~+70°C	声压 ≥80dB SPL ≥80dB
8	保存温度范围 Range of preservation temperature	-30~+75°C	
9	端子强度 Terminal strength	10N	拉负荷方向的终端轴 Pull load on the direction of the terminal axis
10	外部尺寸 Externals size	Φ9×4.2	参阅附图 Refer to the attached drawing
11	重量 Mass	0.7g	

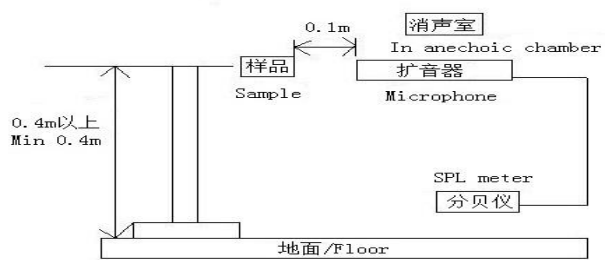
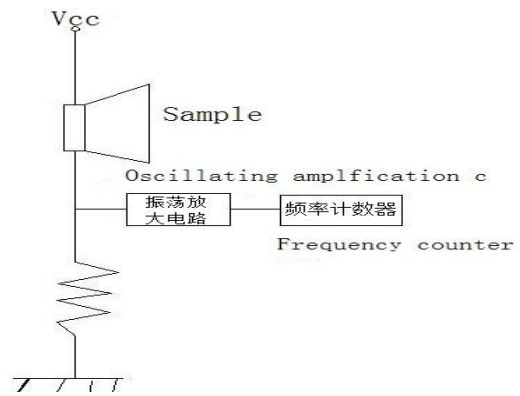
☆标准状态：常温（15~35°C），湿度（25~85%相对湿度），空气压力（860~1060hpa）  
在假设的情况判断，测试是一基本状态下进行。

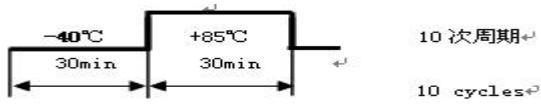
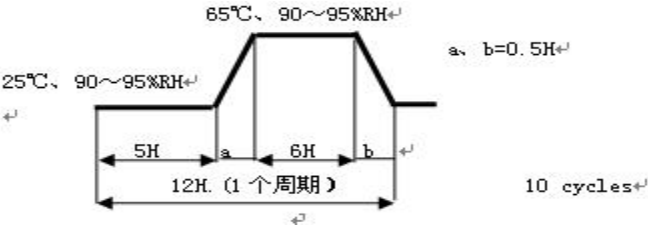
Standard State:Ordinary Temp(15~35°C),Humidity(25~85%RH),Air pressure(860~1060hPa)  
In case of doubtful judgment,the test is re—performed under Basic State.

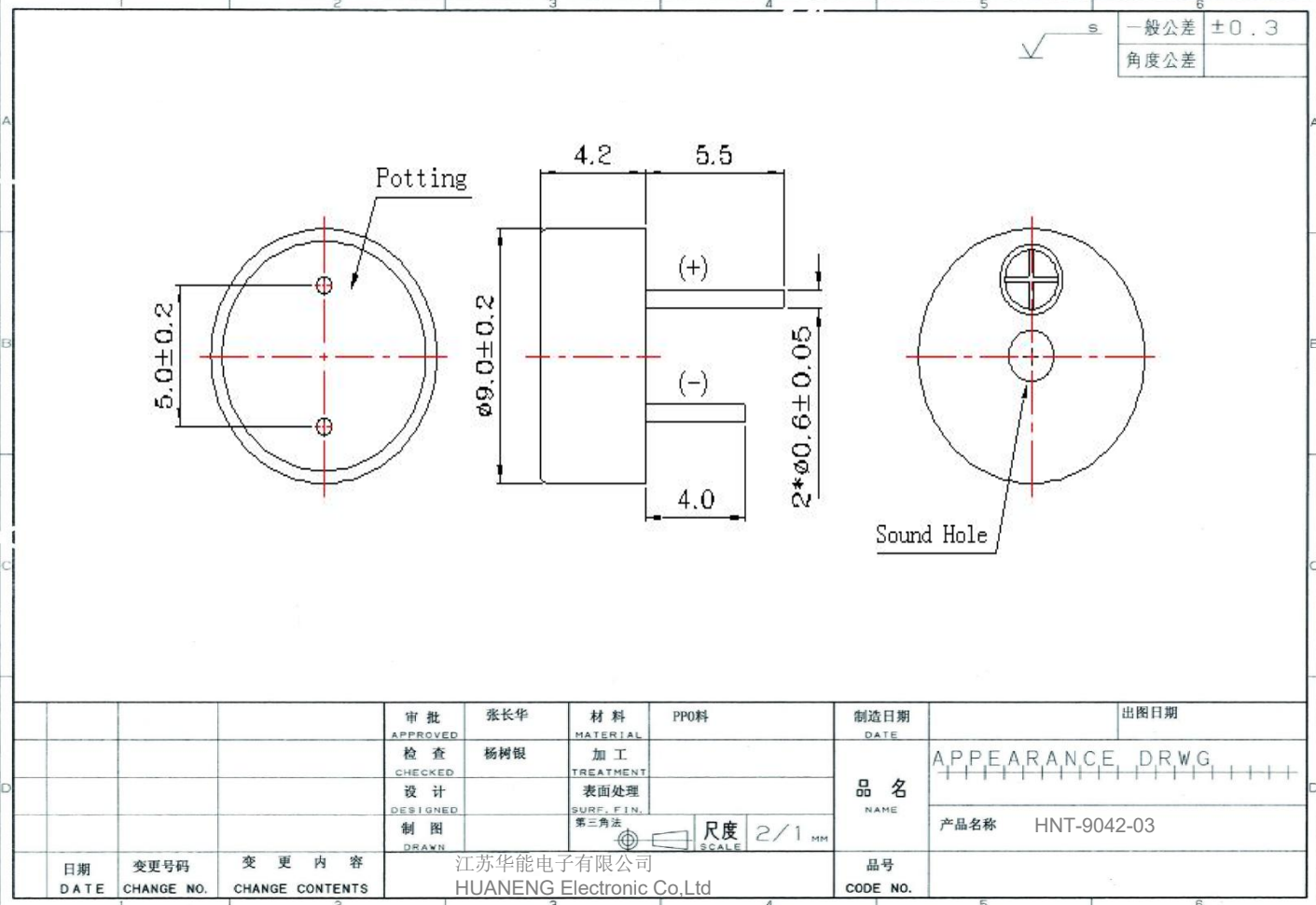
☆基本情况：温度。（20±2°C），湿度（60~70%相对湿度），空气压力（860~1060hpa）  
Basic State: Temp.(20±2°C),Humidity(60~70%RH),Air pressure(860~1060hPa)

<标准驱动电路>/<Standard Drive Circuit>

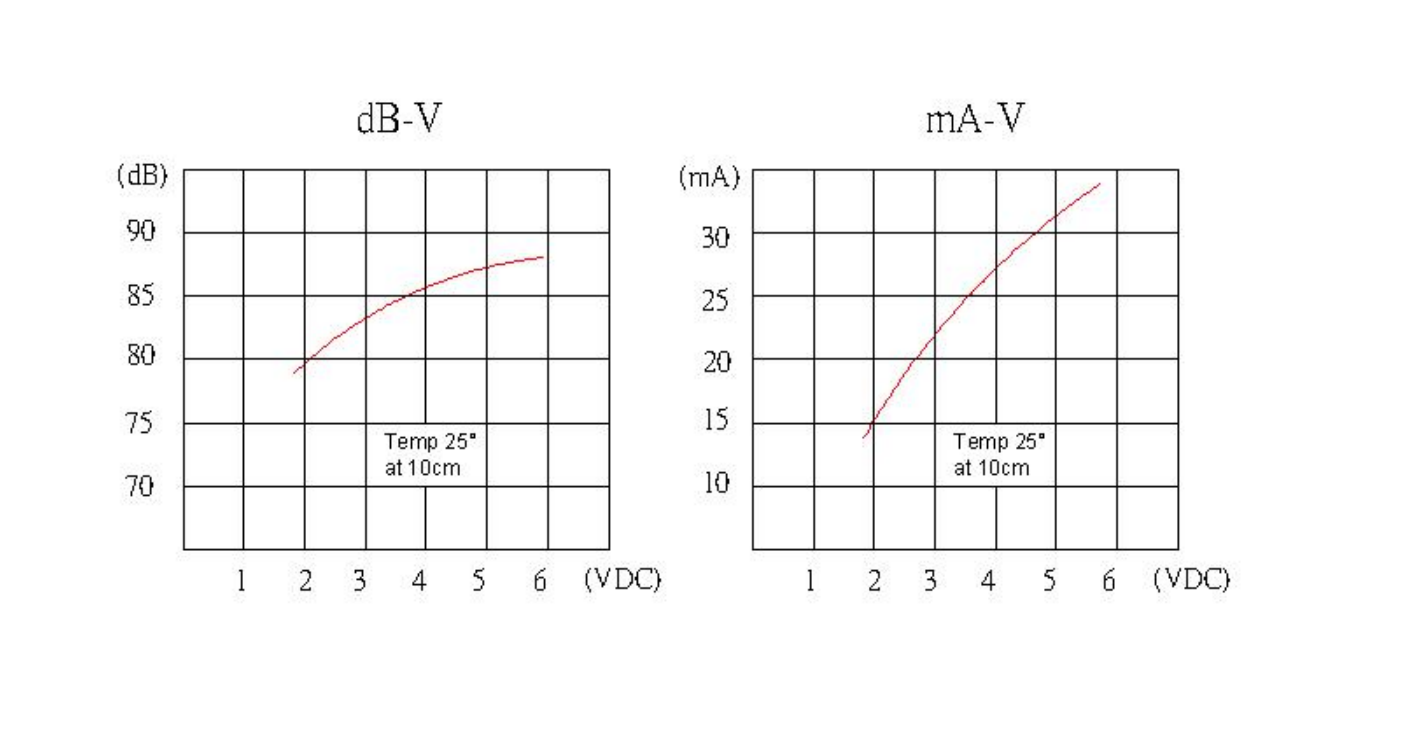
<标标测试治具>/<Standard Test Fixture>



项目/Item		试验条件/Test condition	判断标准/Criteria	引用规格
1	高温保存试验 High temperature Preservation	+85℃环境下放置48小时 Exposure to +85℃ for 48 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80分贝或以上(3000±300 Hz) After the test the part shall meet specificati- -ons without any degra- -dation in appearance And performance except SPL. SPL shall be 80dB More. (at 3000±300 Hz)	
2	低温保存试验 Low temperature preservation	-40℃环境下放置48小时 Exposure to -40℃ for 48 hrs.		
3	耐温试验 Thermal Shock	 10次周期↕ 10 cycles↕		
4	温湿度试验 Thermal, Humidity Shock	 10 cycles↕		
5	常温寿命试验 Ordinary Temp. Life	常温(25℃±10℃)电压3VC连续测试48小时 Driving the sounder at 3VC for 48hrs in the room temperature(25℃±10℃)		
6	高温寿命试验 High Temp. Life	高温(+85℃)电压3VC连续测试2小时 Driving the sounder at 3VC for 2hrs in the low temperature(+85℃)		
7	低温寿命试验 Low Temp. Life	低温(-40℃)电压3VC连续测试2小时 Driving the sounder at 3VC for 2hrs in the low temperature(-40℃)		
8	端子拉力试验 Lead strength	10N的拉力在端子上拉10±1秒 Pull load on the direction of the terminal axis for 10±1 sec.		
9	振动试验 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 10~55~10Hz Sinewave, Sweep 1 min, Amplitude 1.52mm Max91m/S <sup>2</sup> X, Y, Z 3Direction 2hrs each, Total 6hrs		
10	自由掉落试验 Free drop	70cm高自由掉落到厚40mm的木板上,每个方向一次 Free drop, 70cm height, on wood board (t40mm) X, Y, Z 3Direction 1time each, total 3times.	排除弯曲的针 Exclude bending of Pin	
11	波峰焊耐热试验 Wave solderheat resistance test	262±10℃焊接温度。时间5±0.5sec Soldering into solderbath:Solder Temp. 262±10℃ Soaking Time: 5±0.5sec	经过测试,符合规格,没有任何不合格的外观和性能 After the test the part Shall meet specificatio- -ns without any degrada- -tion in appearance and performance	
12	耐洗性试验 Washability	溶剂:去离子水,溶剂温度:55±5℃,时间:5±0.5分钟 Solvent:deionized water, Solvent temp:55±5℃ Soaking time:5±0.5minutes		
13	端子可焊性试验 Solderability	40℃,相对湿度90~95%RH放置48小时,370±5℃焊接温度。时间:6±0.5sec。 Pretreatment:40℃,90~95%RH*48hrs Soldering into solderbath:Solder Temp. 370±5℃ Soaking Time: 6±0.5sec	端子95%必须覆盖着焊料 95% surface of lead pins must be covered with fresh solder and no soldering holes Should be found	



产品电流图



- 1.PCB预热温度最高升温斜率 $2^{\circ} \text{C/sec}$
- 2.PCB预热温度范围 $80-120^{\circ} \text{C}$
- 3.PCB预热温度最高降温斜率 $6^{\circ} \text{C/sec}$
- 4.焊接时间(波峰1+波峰2)3-5 Sec.
- 5.锡缸焊料的温度范围 $250-260^{\circ} \text{C}$
- 6.运输速度1.4-1.5m/min