

# 规格书

# Specification

品名  
Model name

HN1201-9.0

PROPRIETARY  
Huaneng Electronic co.,Ltd.

CONFIDENTIAL  
Huaneng Electronic co.,Ltd.

Version #	Spec V1.0
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*Components Operating Div.  
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1.适用范围：本规范适用于HN1201蜂鸣器。

HN1201 SPEC V1.0

This specifications apply the HN1201 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	1.5-5V	
3	声压 Sound Pressure Level=SPL	Min 85dB	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 50mA	
5	振荡频率 Oscillation frequency	2000Hz	
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 ≥85dB SPL ≥85dB
8	保存温度范围 Range of preservation temperature	-30~+85°C	
9	线圈电阻 Coilresistance	16±3Ω	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	Φ12x9.0	参阅附图 Refer to the attached drawing
11	重量 Mass	2g	

☆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)

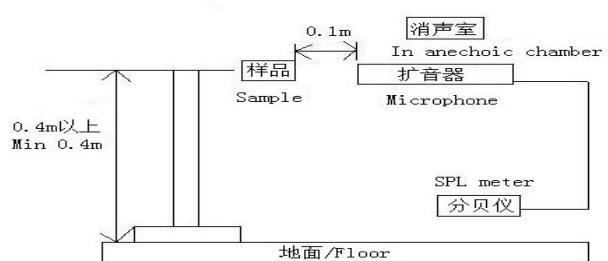
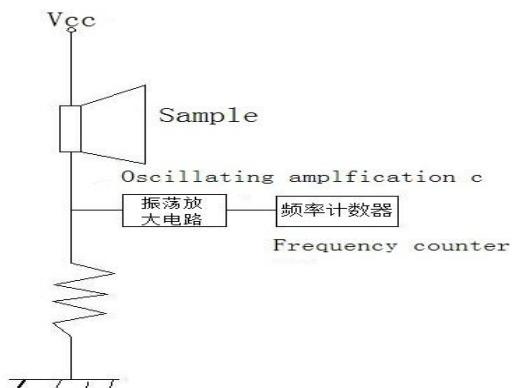
In case of doubtful judgment, the test is re—performed under Basic State.

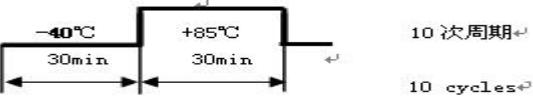
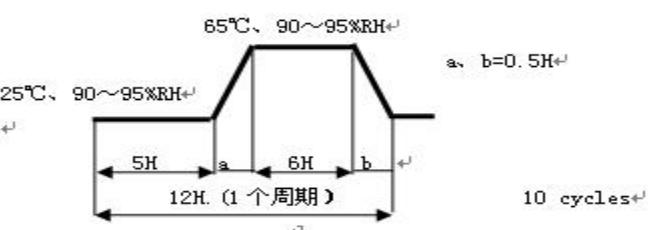
☆基本情况：温度。（20±2°C），湿度（60~70%相对湿度），空气压力（860~1060hpa）

Basic State: Temp.(20±2°C), Humidity(60~70%RH), Air pressure(860~1060hPa)

<标准驱动电路>/<Standard Drive Circuit>

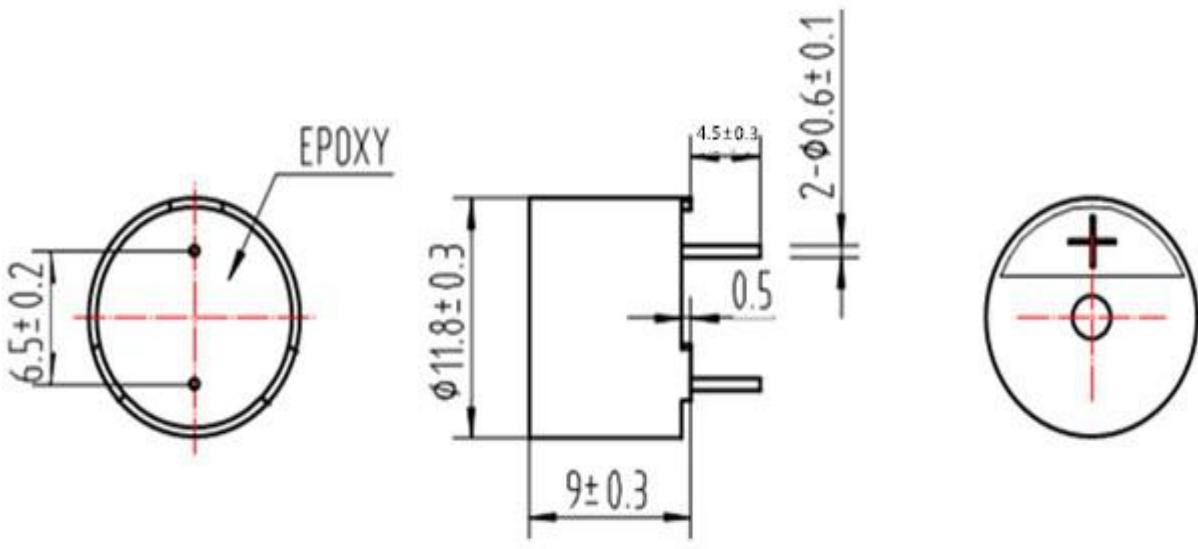
<标标测试治具>/<Standard Test Fixture>



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°C环境下放置48小时 Exposure to +85°C 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 (2000 Hz)	
2	低温保存试验 Low temperature preservation	-40°C环境下放置48小时 Exposure to -40°C for 48 hrs.	After the test the part shall meet specifications without any degradation in appearance And performance except SPL. SPL shall be 80dB More. (at 2000 Hz)	
3	耐温试验 Thermal Shock		10 次周期 10 cycles	
4	温湿度试验 Thermal, Humidity Shock		65°C, 90~95%RH 25°C, 90~95%RH a, b=0.5H 12H. (1个周期) 10 cycles	
5	常温寿命试验 Ordinary Temp. Life	常温 (25°C±10°C) 电压3V连续测试48小时 Driving the sounder at 3V for 48hrs in the room temperature (25°C±10°C)		
6	高温寿命试验 High Temp. Life	高温(+85°C)电压3V连续测试2小时 Driving the sounder at 3VDC for 2hrs in the low temperature (+85°C)		
7	低温寿命试验 Low Temp. Life	低温(-40°C)电压3V连续测试2小时 Driving the sounder at 3V for 2hrs in the low temperature (-40°C)		
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°C焊接温度。时间5±0.5sec Soldering into solderbath:Solder Temp. 262±10°C 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 specifications without any degradation in appearance and performance	
12	耐洗性试验 Washability	溶剂: 去离子水, 溶剂温度: 55±5°C, 时间: 5±0.5分钟 Solvent:deionized water, Solvent temp:55±5°C Soaking time:5±0.5minutes		
13	端子可焊性试验 Solderability	40°C, 相对湿度90~95%RH放置48小时, 370±5°C焊接温度。时间: 6±0.5sec。 Pretreatment:40°C, 90~95%RH*48hrs Soldering into solderbath:Solder Temp. 370±5°C 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	

\*基本公差: 除特殊注明外, 一般公差为 $\pm 0.5\text{mm}$

\*外壳材料: Black PBT



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## 频率曲线图

