

规格书 Specification

品名
Model name

HND-1407B

PROPRIETARY
Huaneng Electronics co.,Ltd.

CONFIDENTIAL
Huaneng Electronics co.,Ltd.

Version #	Spec V1.0
制作日期 Date	2017/06/02
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江苏华能电子有限公司

*Components Operating Div.
Huaneng Electronic co., Ltd.*

1.适用范围：本规范适用于HND-1407B蜂鸣器。

This specifications apply the HND-1407B buzzer.

2.基本规格/General specification

项目/Item	规格/Spec	条件/Condition
1 额定电压 Rated voltage	5VDC	
2 工作电压 Operation voltage	3~16VDC	
3 声压 Sound Pressure Level=SPL	Min 80dB Typical 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 12mA	
5 振荡频率 Oscillation frequency	4500±500Hz	
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	-30~+70℃	声压≥80dB SPL≥80dB
8 保存温度范围 Range of preservation temperature	-20~+80℃	
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	Φ14.1x7	参阅附图 Refer to the attached drawing
11 重量 Mass	2g	

☆标准状态：常温（15~35℃），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℃), Humidity(25~85%RH), Air pressure(860~1060hPa)

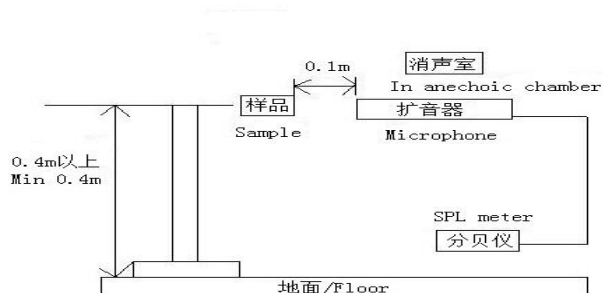
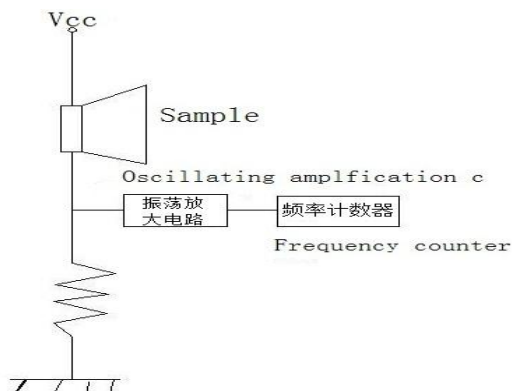
In case of doubtful judgment, the test is re-performed under Basic State.

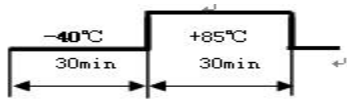
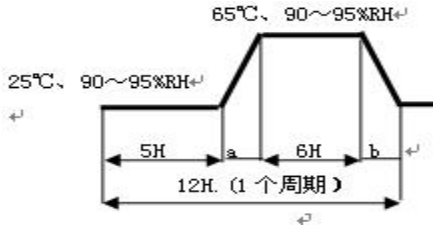
☆基本情况：温度。（20±2℃），湿度（60~70%相对湿度），空气压力（860~1060hpa）

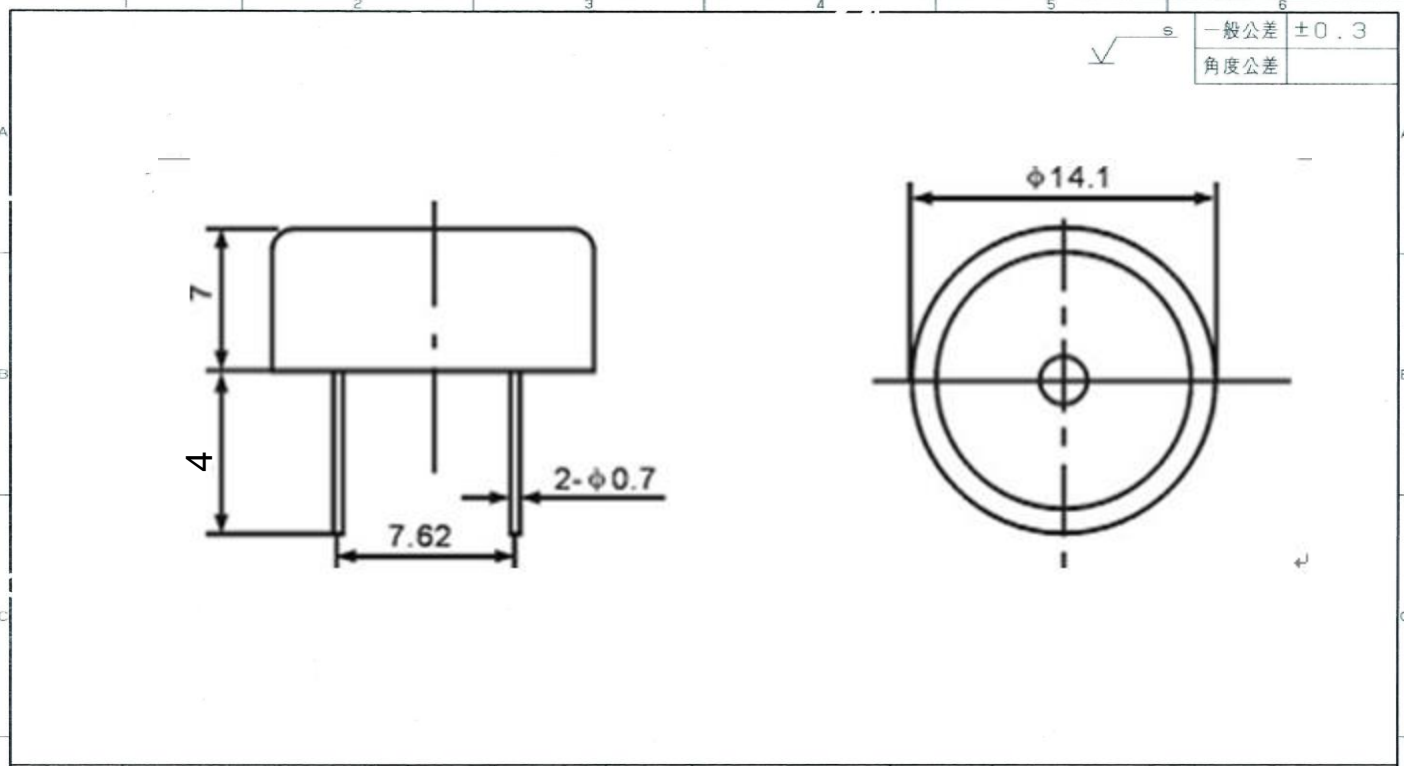
Basic State: Temp.(20±2℃), Humidity(60~70%RH), Air pressure(860~1060hPa)

<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（4500±500 Hz） After the test the part shall meet specifications without any degradation in appearance and performance except SPL. SPL shall be 80dB More. (at 4500±500 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.		
3	耐温试验 Thermal Shock	 <p>10次周期 10 cycles</p>		
4	温湿度试验 Thermal, Humidity Shock	 <p>10 cycles</p>		
5	常温寿命试验 Ordinary Temp. Life	常温（25°C±10°C）电压5VDC连续测试48小时 Driving the sounder at 5VDC 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5VDC连续测试2小时 Driving the sounder at 5VDC for 2hrs in the low temperature (+85°C)		
7	低温寿命试验 Low Temp. Life	低温（-40°C）电压5VDC连续测试2小时 Driving the sounder at 5VDC 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 ² 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 ² 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	



一般公差	±0.3
角度公差	

			审批 APPROVED	张长华	材料 MATERIAL	PPO料	制造日期 DATE	出图日期	
			检查 CHECKED	杨树银	加工 TREATMENT		品名 NAME	APPEARANCE DRWG	
			设计 DESIGNED		表面处理 SURF. FIN.			产品名称	HND-1407B
			制图 DRAWN		第三角法	尺度 SCALE	2/1 mm	品号 CODE NO.	
日期 DATE	变更号码 CHANGE NO.	变更内容 CHANGE CONTENTS	江苏华能电子有限公司 HUANENG ELECTRONICS CO.,LTD						

产品频率图

