

# 规格承认书

## PECIFICATION FOR APPROVAL

客 户

CUSTOMER: \_\_\_\_\_

客户物料

CUSTOMER NO. : \_\_\_\_\_

品 名

ITEM: 电磁式有源蜂鸣器 (内含驱动电路)

型 号

TYPE: HMB1275-12B

规 格

SPECIFICATION:  $\phi 12 \times H7.5\text{mm}$  12VDC  $\geq 85\text{dB}$  2700Hz 间距7.6MM

### 客户承认

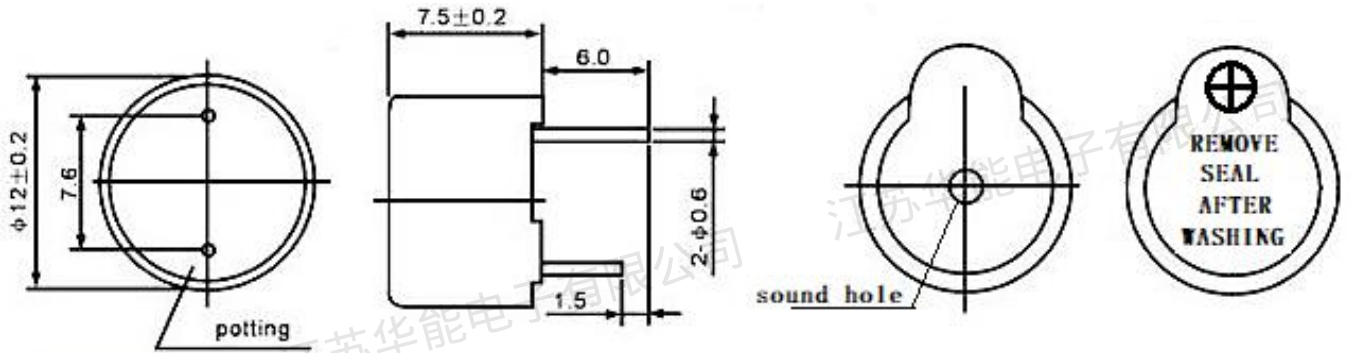
### CUSTOMER CONFIRM AND SIGN

检查 TESTED BY	审核 CHECKED BY	承认 APPROVED BY

江苏华能电子有限公司

JIANGSU HUANENG ELECTRONIC CO.,LTD.

检查 TESTED BY	审核 CHECKED BY	承认 APPROVED BY
房露		

**A: DIMENSION**尺寸 (Unit单位 mm)


\*Unit: mm; Tolerance:  $\pm 0.3$ mm Except Specified\*基本公差:  $\pm 0.3$ mm除特殊注明外

\*Housing Material: Black PBT\*外壳材料:Black PBT

\*Terminal plate: 2 Tin needles, tin Plating Brass\*线路板:2个黄铜镀锡锡针

**B: SPECIFICATIONS**规格参数

Model NO 型号		HMB1275-12B
Rated Voltage 额定电压	VDC	12
Operating Voltage 工作电压	VDC	8 ~ 15
*Max.Rated Current 最大额定电流	mA	Max.30
*Sound Pressure level(dB)/at10cm 输出音压 (测试距离 10 厘米)	dB	Min 85 at Rated Voltage
*Resonant Frequency 谐振频率	Hz	$2700 \pm 300$
Operating Temperature 工作温度	°C	-20 ~ +70
Storage Temperature 储存温度	°C	-30 ~ +80
Case material and color 外壳材质和颜色		RoHS PBT / Black
Weight 净重	g	

**Measuring condition**测试条件

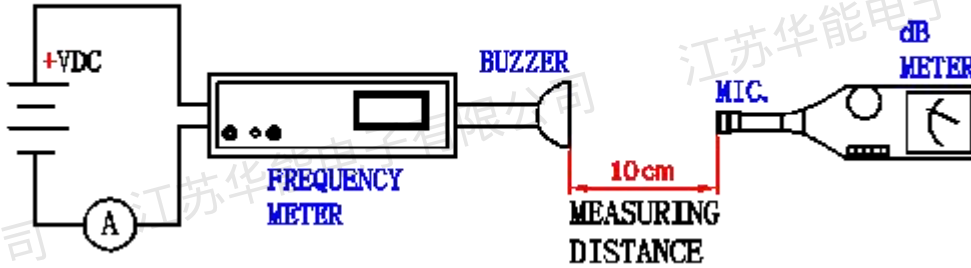
Part shall be measured under a condition (Temperature:  $5 \sim 35^{\circ}\text{C}$ , Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature:  $25 \pm 3^{\circ}\text{C}$ , Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

产品测试条件: 温度:  $5 \sim 35^{\circ}\text{C}$ , 湿度: 45% ~ 85%R.H., 气压: 860 ~ 1060hPa。

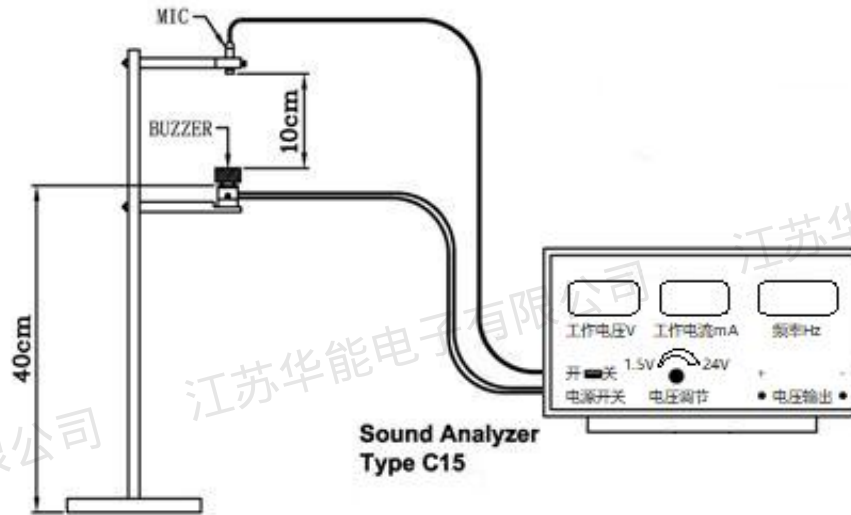
标准测试条件: 温度:  $25 \pm 3^{\circ}\text{C}$ , 湿度: 60±10%R.H. 气压: 860 ~ 1060hPa

### C: Acoustic Characteristics 声学特征

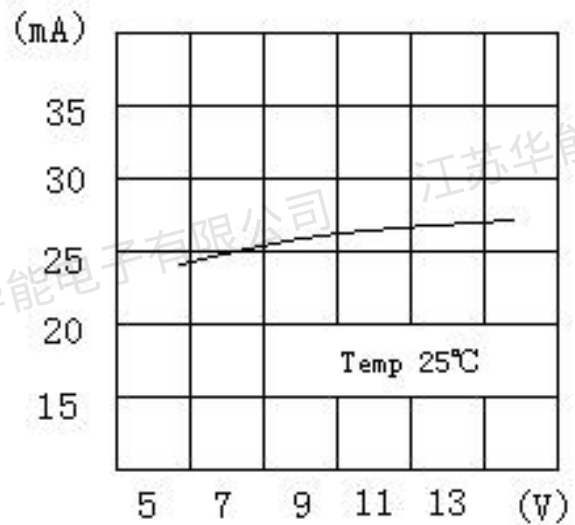
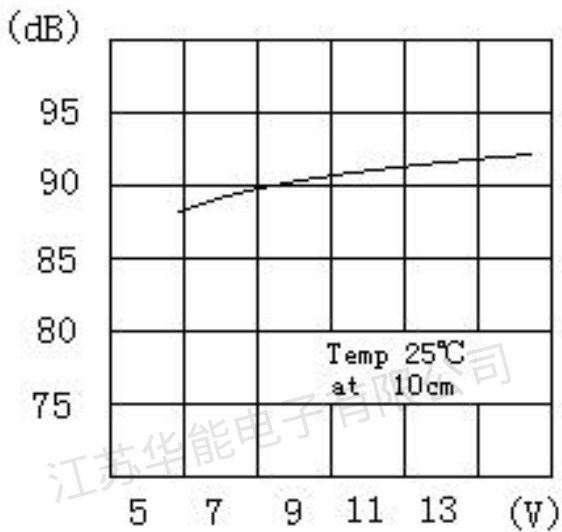
The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below 振荡频率、电流消耗和声压测量仪器如下图所示



In the measuring test, buzzer is placed as follows 测量测试中蜂鸣器放置如下:

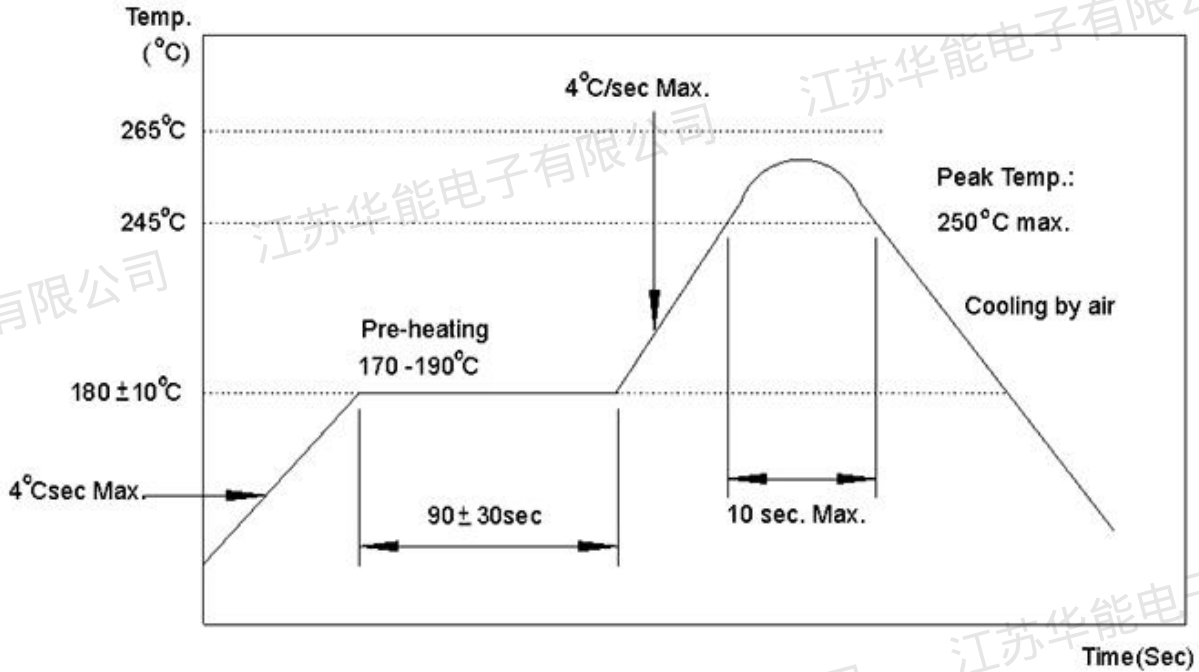


### D: Typical Frequency Response Curve 频率响应曲线



## E:Soldering Condition 焊接条件

推荐的波峰焊条件如下



注意事项:

- (1) 产品经过波峰焊机后，所有电性能要保持在规格书的范围内。
- (2) 波峰焊的操作温度一定要在推荐范围之内。如果超出范围都有可能影响到产品性能。
- (2) 手工焊接3-5秒内焊接温度为350°C。

## F: Reliability Test 可靠性实验

After any following tests the part shall meet specifications without any degradation in appearance and performance except SPL. SPL shall not deviate more than -10 dB from the initial value. 在下面任何一项测试后都要符合以下标准，外观和电性能(除声压外)上不能有不良或衰减现象出现，声压不能低于规格说明书的最低声压的10dB。

### 1. Ordinary Temperature Life Test 寿命测试

The part shall be subjected to 96 hours at  $25 \pm 10^\circ\text{C}$ . Input rated voltage Resonant frequency, 1/2 duty Square wave. 将测试件置于 $25 \pm 10^\circ\text{C}$ 的温度下，输入额定电压、占空比为1/2的谐振频率方波测试96小时。

### 2. High Temperature Test 高温测试

The part shall be capable of with standing a storage temperature of  $+80^\circ\text{C}$  for 96 hours. 将测试件置于 $+80^\circ\text{C}$ 的温度下存放96小时，取出置于常温下3小时而后测试。

### 3. Low Temperature Test 低温测试

The part shall be capable of with standing a storage temperature of  $-30^\circ\text{C}$  for 96 hours. 将测试件置于 $-30^\circ\text{C}$ 的温度下存放96小时，取出置于常温下3小时而后测试。

### 4. Humidity Test 湿度测试

Temperature:  $+40^\circ\text{C} \pm 3^\circ\text{C}$  Relative Humidity: 90%~95% Duration: 48 hours and expose to room temperature for 6 hours

将测试件置于温度 $+40 \pm 3^\circ\text{C}$ ，湿度90%~95%的条件下持续48小时，再置于室温下6小时而后测试。

### 5. Temperature Shock Test 温度冲击测试

Temperature:  $70^\circ\text{C} / 1\text{hour} \rightarrow 25^\circ\text{C} / 2\text{hours} \rightarrow -30^\circ\text{C} / 1\text{hour} \rightarrow 25^\circ\text{C} / 3\text{hours}$  (1cycle) Total cycle: 10 cycles

将测试件置于以下温变条件下： $70^\circ\text{C} / 1\text{小时} \rightarrow -25^\circ\text{C} / 2\text{小时} \rightarrow -30^\circ\text{C} / 1\text{小时} \rightarrow 25^\circ\text{C} / 3\text{小时}$  (1周期)，做完一个周期实验，过1个小时后再继续下一次实验，总测试周期数：10个周期。

### 6. Drop Test 跌落测试

Standard Packaging From 120mm (Drop on hard wood or board of 5cm thick, three sides, six plain.) 将测试件标准包装后(包装盒的3个边6个面)从1.2米的高度下跌落到厚木板或5厘米厚的硬木板上。

### 7. Vibration Test 振动测试

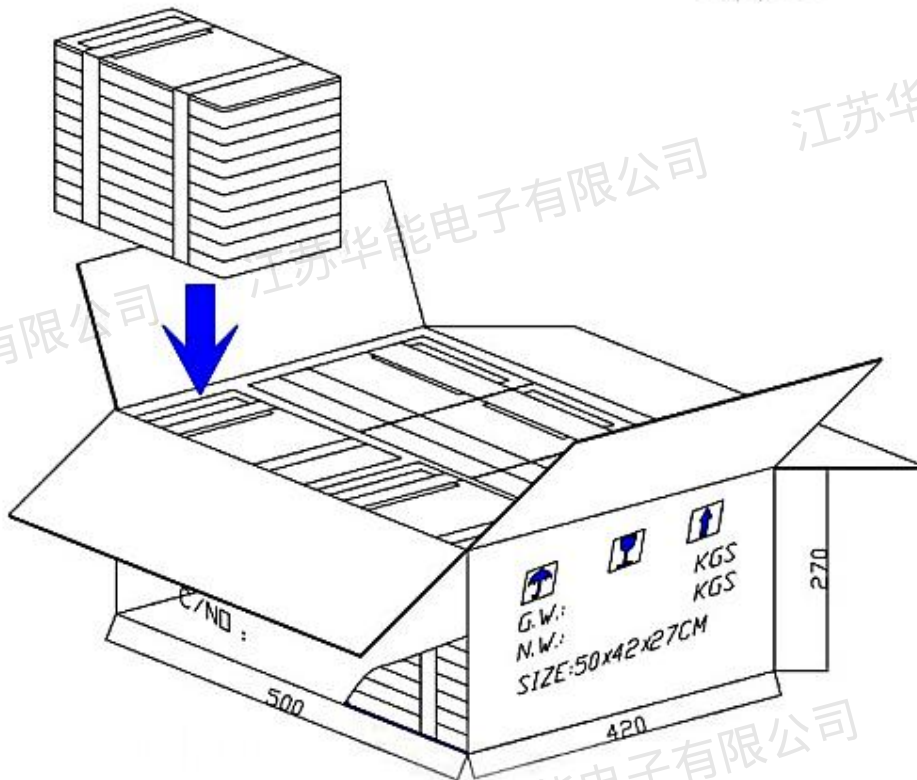
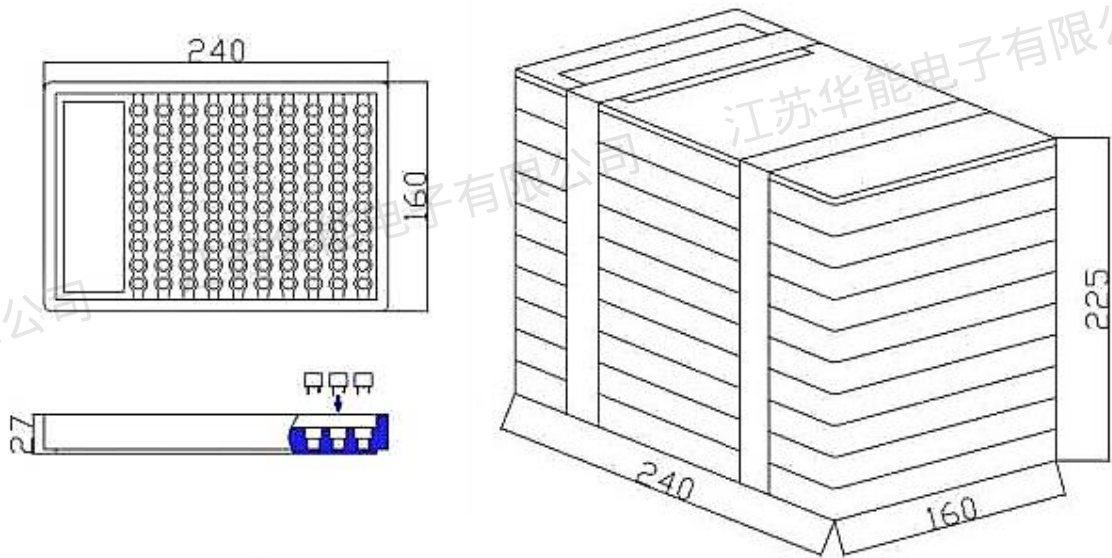
Vibration: 1000cycles /min. Amplitude: 1.5mm, Duration: 1 hour in each 3 axes

按以下条件实验后再测试：振速：1000次/分；振幅：1.5毫米；时间：1小时更换一个自由度方向共3个自由度方向。

## Notice:

As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign material enter it.

需避免无关材料进入产品内，无关材料如：磁性材料、水溶性材料、腐蚀性的气体等。这些无关材料会影响产品的电性能。

**G:PACKING FORMAT (UNIT:cm)包装**


Each layer 每层	240×160×24mm	1×100pcs=100pcs
Each bundle 每捆	240×160×225mm	10×100pcs=1000pcs
Each box 每箱	520×420×280mm	5×1000pcs=5000pcs



## H:REVISION HISTORT 修订记录

REV. 版本	DESCRIPTION 说明	DATE 日期
	Initial release 最初签发	2024-6-29