

**MESSRS:**

**SPECIFICATION FOR APPROVAL**

**承 认 书**

DESCRIPTION : BUZZER

PART NO. : HYG-9045A

USER'S PART NO. :

DATE : 2022. 06. 25

CUSTOMER APPROVED :

Approved By	Checked By	Made By
	易 申	吕 玲

**JIANGSU HUAYU ELECTRONICS CO., LTD**

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# Φ9\*4.5-3V

DATE:

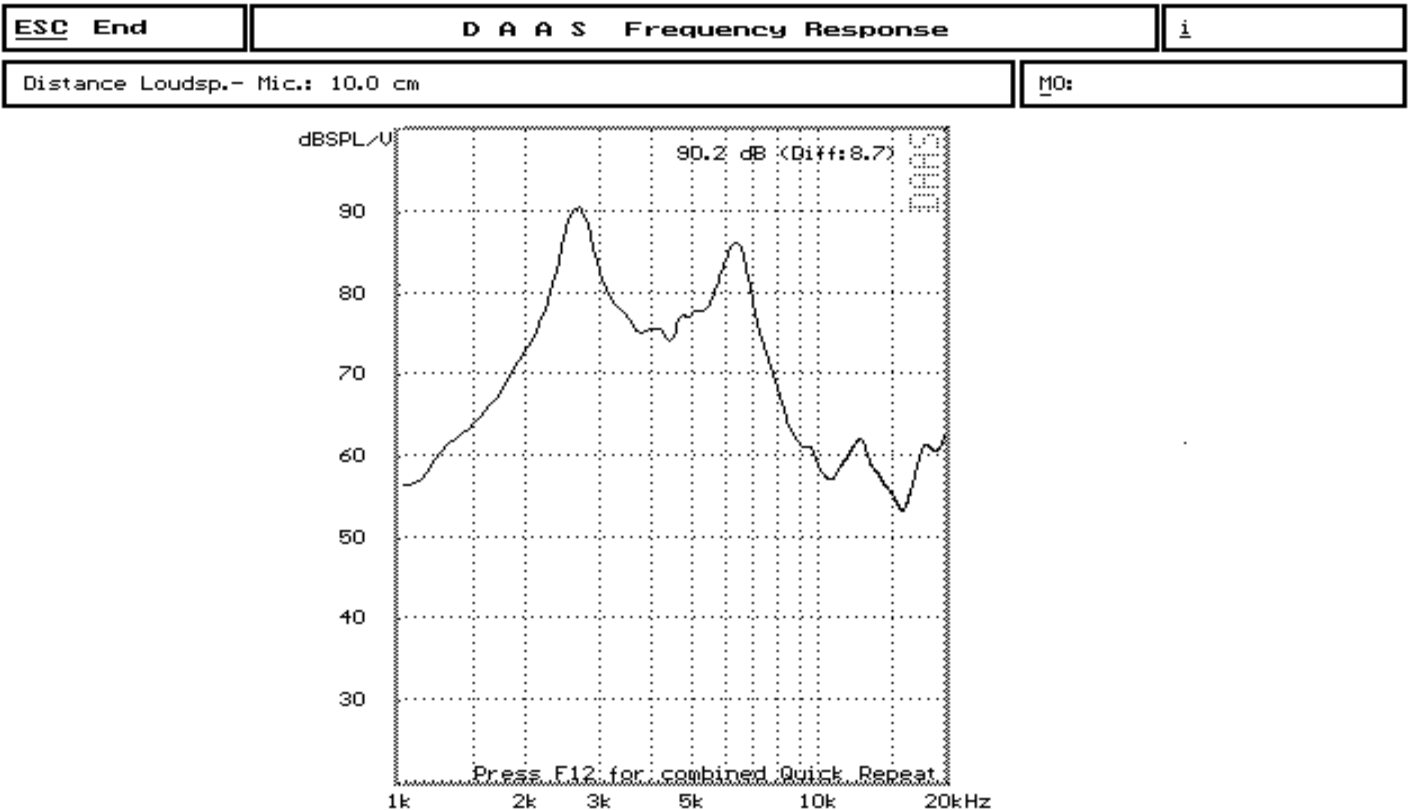
## 1. Electrical Characteristics

VER.:0

Oscillation Frequency (Hz)	2700
Operating Voltage (Vp-p)	2.0 ~4.0
Rated Voltage (Vp-p)	3.0
Current Consumption (mA/max.)	80 at Rated Voltage
Sound Pressure Level (dB/min.)	85 at 10cm at Rated Voltage
Coil Resistance (Ω)	16 ±3
Operating Temperature (°C)	-30 ~ +70
Storage Temperature (°C)	-40 ~ +85

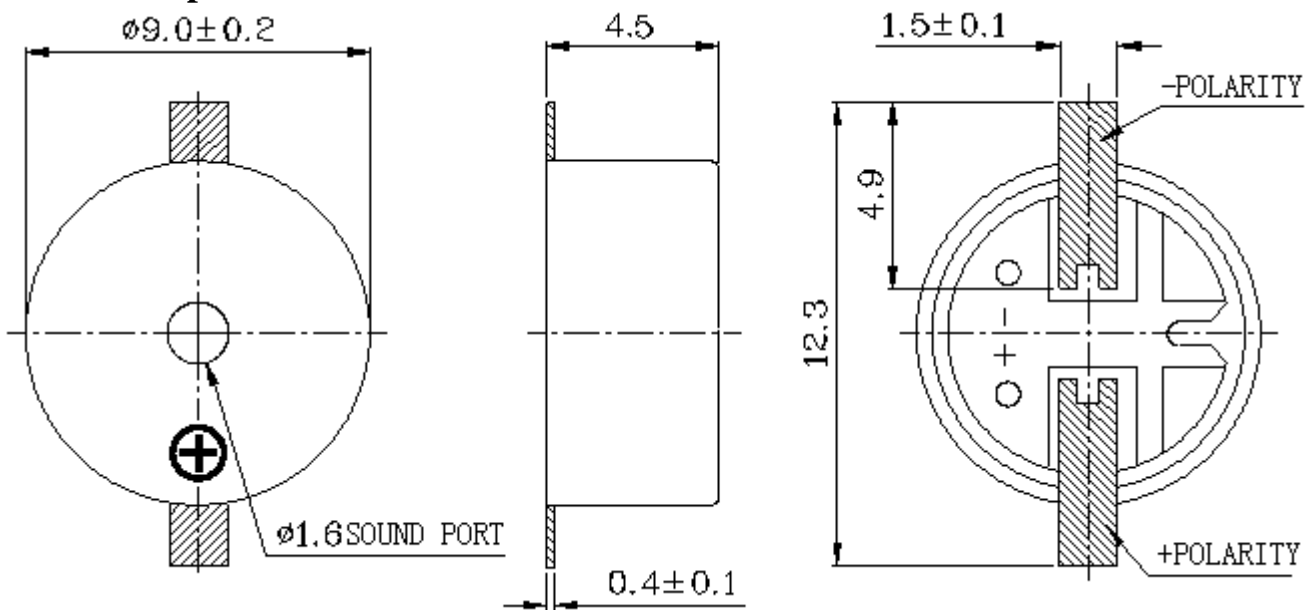
PS : Vp-p = 1/2duty , square wave

## 2. Typical Frequency Response Curve



### 3. Dimensions and Material

#### 3-1 Shape

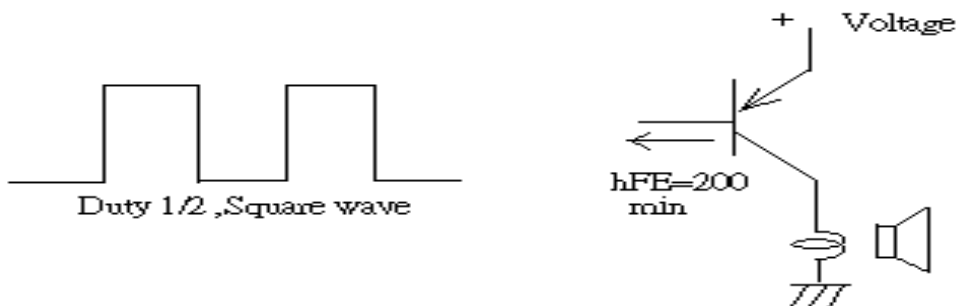


Unit : mm Tol:  $\pm 0.3$

#### 3-2 Material

Housing	PPS plastic resin (Color : Black)
Leading Pin	Plated Brass
Weight (Gram)	0.8

### 4. Recommend Driving Circuit



The base current  $I_b$  should high enough so that it saturates the collector current of the transistor with the CB load.

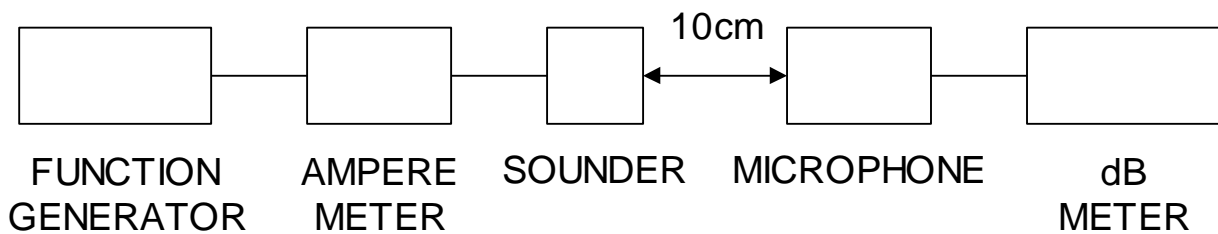
## 5. TESTING METHOD

### · *Standard Measurement conditions*

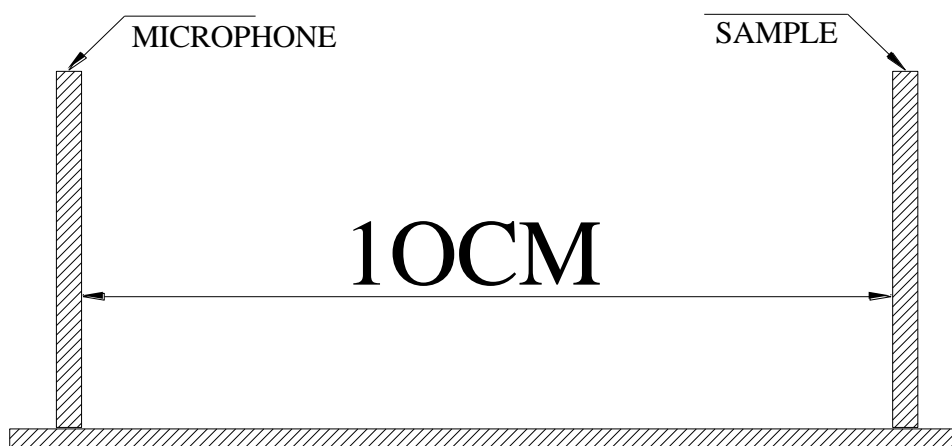
Temperature:  $25 \pm 2^\circ\text{C}$  Humidity: 45-60%

### · *Acoustic Characteristics*

The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below.



*In the measuring test, buzzers is placed as follows:*



## 6. RELIABILITY

<b>ITEMS</b>	<b>METHOD OF TEST AND MEASUREMENTS</b>	<b>PERFORMANCE</b>
<i>Coldness withstanding</i>	<i>After 98 hours of being exposed to -30°C environment, should be returned to normal environment for 2 hours, then re-proceed to test.</i>	<i>No abnormality shall exist</i>
<i>Hotness withstanding</i>	<i>After 98 hours of being exposed to +80°C environment, should be returned to normal environment for 2 hours, then re-proceed to test.</i>	<i>No abnormality shall exist</i>
<i>Humidity withstanding</i>	<i>After 98 hours of being exposed to 40°C 95%RH environment in actual operation, should be returned to normal environment for 2 hours, then re-proceed to test.</i>	<i>No abnormality shall exist</i>
<i>Durability</i>	<i>Testing after 1,000 hours actual continuous operation. (at standard measurement conditions)</i>	<i>No abnormality shall exist</i>
<i>Drop withstanding</i>	<i>A natural drop from 75cm high down to the ground.</i>	<i>No abnormality shall exist</i>
<i>Vibration withstanding</i>	<i>Vibration of 2,000 cycles per minute, 2mm amplitude, applied in X, Y and Z directions for 30 minutes each.</i>	<i>No abnormality shall exist</i>

## 7. PACKAGE METHOD

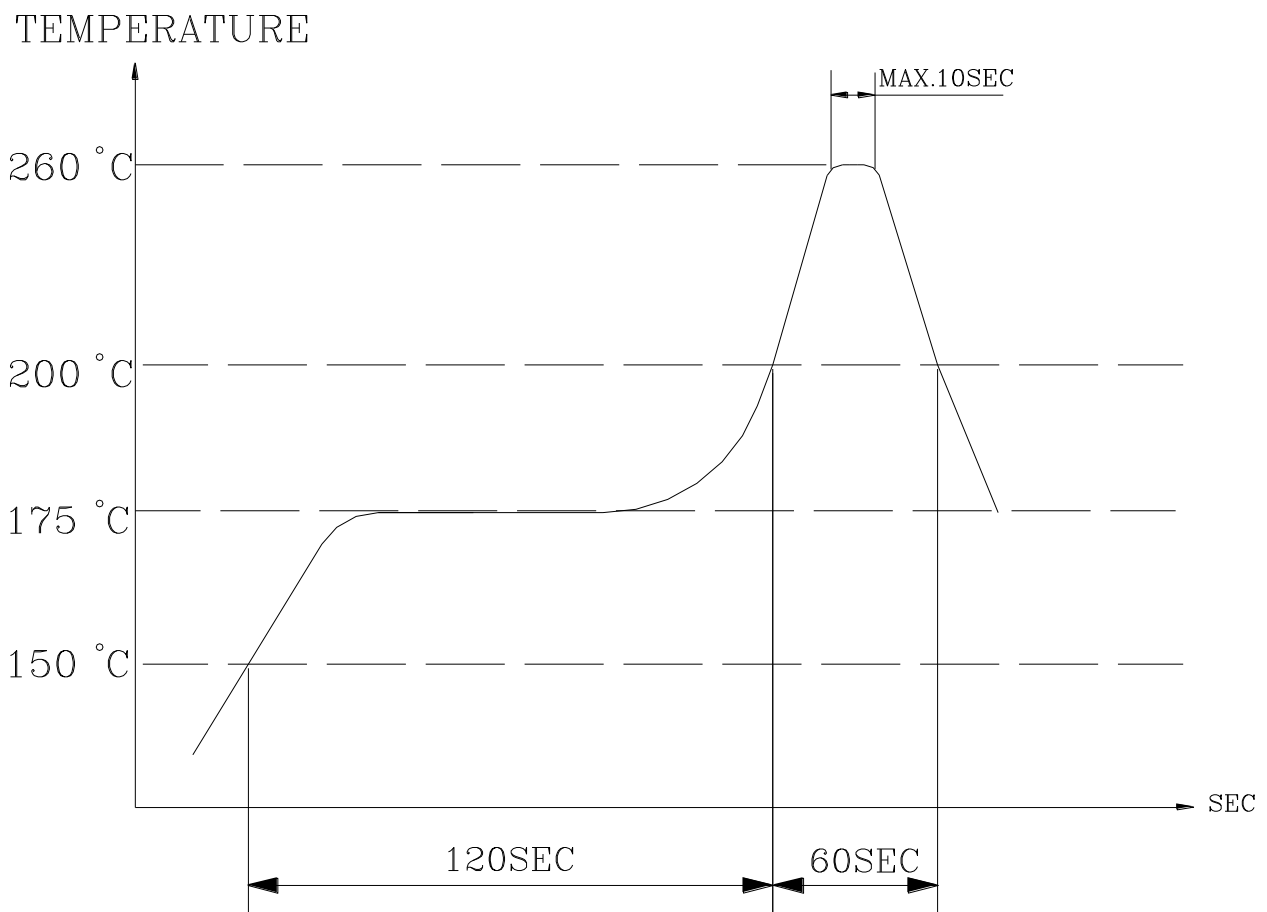
< 1 > One inner box consists of 100pcs.

< 2 > 50 inner boxes are packed in a carton box. (L\*W\*H=490\*410\*265mm)  
(5000pcs of  $\Phi 9 \times 4.3$ -3V are packed in a carton box.)

## 8. Soldering Condition

(1) Recommendable reflow soldering condition is as follows  
(Reflow soldering is twice)

Note: It is requested that reflow soldering should be executed after heat of product goes down to normal.



Heat resistant line

(Used when heat resistant reliability test is performed)

(2) Manual soldering

Manual soldering temperature 350 °C within 10 sec.