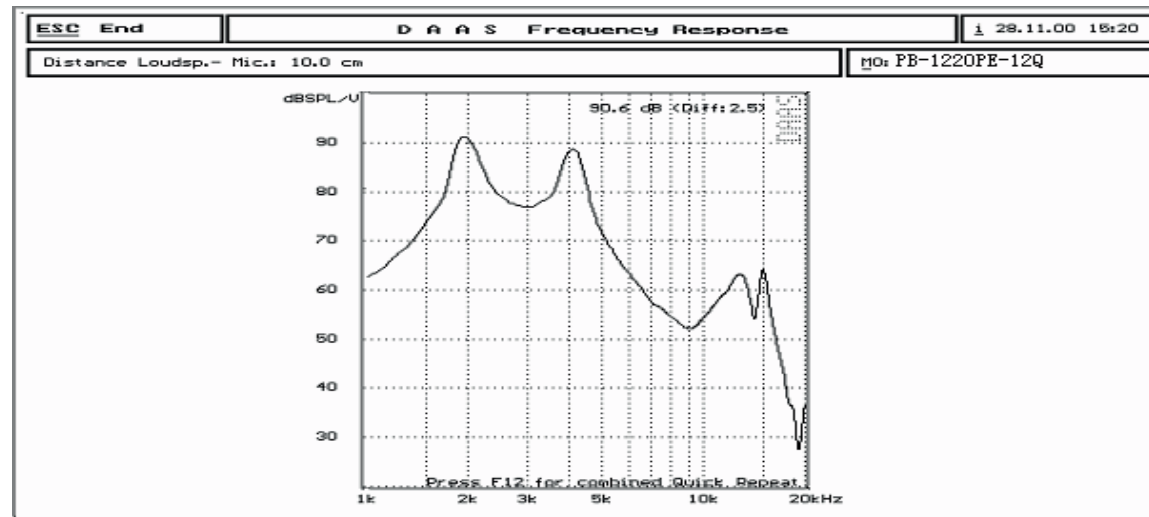


## 1 . Electrical Characteristics

Oscillation Frequency (Hz)	2048
Operating Voltage (Vp-p)	9.0 ~ 15
Rated Voltage (Vp-p)	12
Current Consumption (mA/max.)	65 at Rated Voltage
Sound Pressure Level (dB/min.)	90 at 10cm at Rated Voltage
Coil Resistance ( $\Omega$ )	115 $\pm$ 10
Operating Temperature ( $^{\circ}\text{C}$ )	-20 ~ +70
Storage Temperature ( $^{\circ}\text{C}$ )	-30 ~ +80
Wave soldering conditions	245 $\pm$ 5 $^{\circ}\text{C}$ for 3 $\pm$ 0.5 seconds.
Manual soldering conditions	350 $\pm$ 20 $^{\circ}\text{C}$ / within 5sec

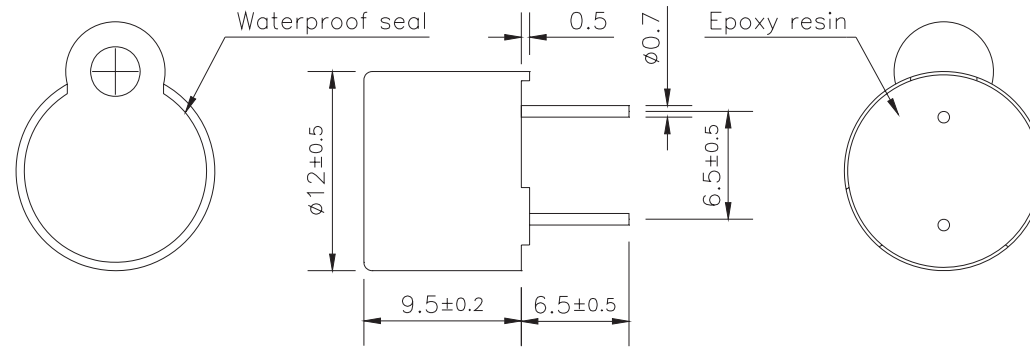
PS : Vp-p = 1/2duty , square wave

## 2 . Typical Frequency Response Curve



### 3 . Dimensions and Material

#### 3-1 Shape

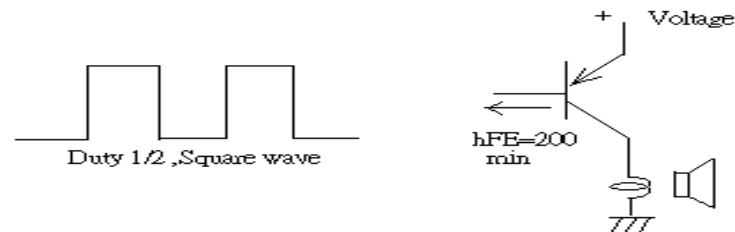


Unit : mm

#### 3-2 Material

Housing	PPO plastic resin (Color : Black)
Leading Pin	Tin Plated Brass
Weight (Gram)	1.6

### 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.

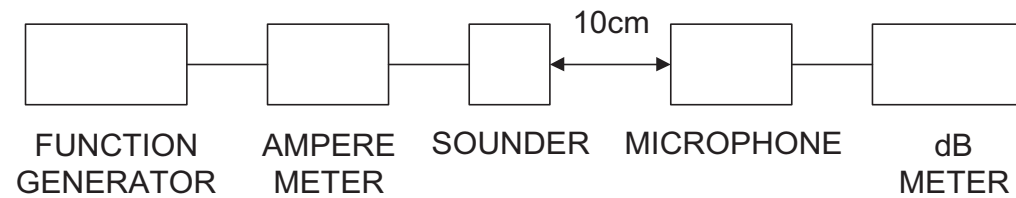
## 5. TESTING METHOD

### • *Standard Measurement conditions*

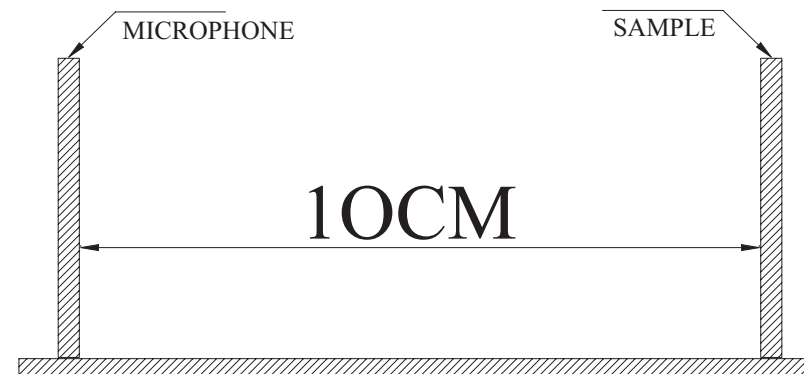
Temperature:  $25 \pm 2 \text{ }^\circ\text{C}$  Humidity: 45-60%

### • *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

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

## 7. PACKAGE METHOD

< 1 > 100pcs per box , Total 10 boxes per carton , total 1000pcs carton;  
 Volume: L\*W\*H=510\*330\*300mm

< 2 > RoHS Mark

