

# SPECIFICATION FOR APPROVAL

## 承 认 书

Description : Magnetic Buzzer  
Vender's Part No. : PMB1612  
Customer's. Part No.: \_\_\_\_\_  
Serial No. : \_\_\_\_\_  
DATE : \_\_\_\_\_

**PMB** 피엠비일렉텍  
상표등록 <제40-0729433호> PMB ELECTECH

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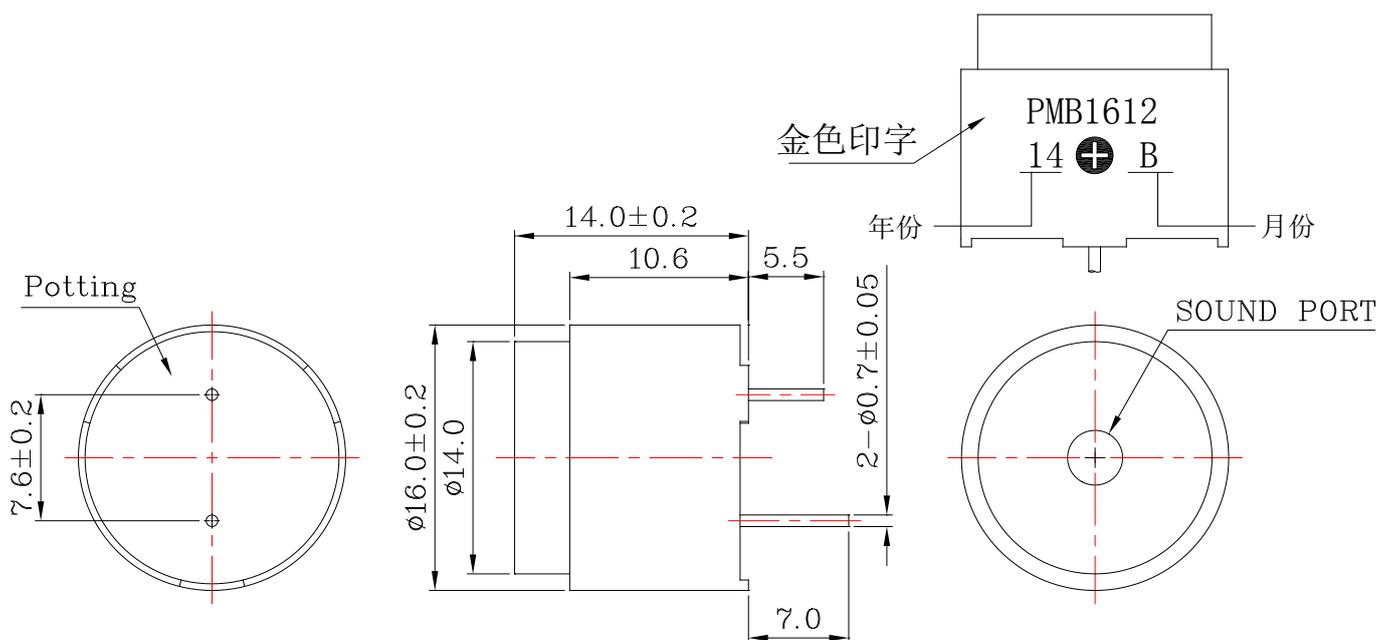
## A. SCOPE

This specification applies magnetic buzzer, **PMB1612**

## B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	2000	Vo-p=1/2duty , square wave
2	Operating Voltage	Vo-p	8 ~ 16	
3	Rated Voltage	Vo-p	12	
4	Current Consumption	mA	MAX.40	at Rated Voltage
5	Sound Pressure Level	dB	MIN. 85	at 10cm at Rated Voltage
6	Coil Resistance	Ω	115±15	
7	Operating Temperature	°C	-40 ~ +85	
8	Storage Temperature	°C	-40 ~ +85	
9	Dimension	mm	16.0 x H14.0	See appearance drawing
10	Weight (MAX)	gram	7.0	
11	Housing Material		PPO( Black )	
12	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing
13	Environmental Protection Regulation		RoHS	

## C. APPEARANCE DRAWING



**Tol : ± 0.5**

**Unit: mm**

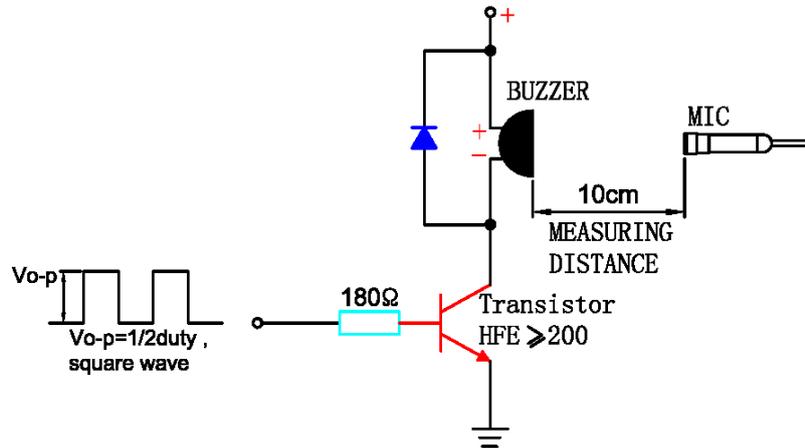
## D. TESTING METHOD

### Standard Measurement conditions

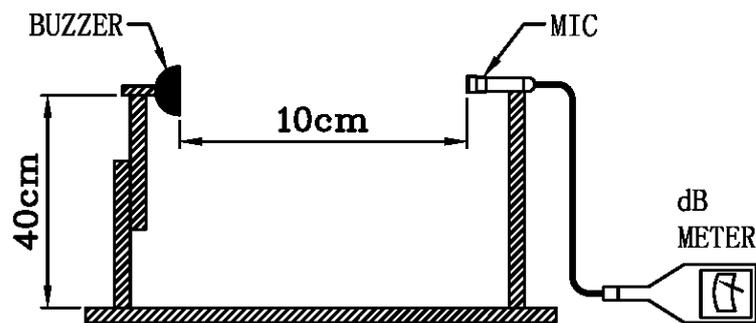
Temperature:  $25 \pm 2^\circ\text{C}$  Humidity: 45-65%

### Acoustic Characteristics:

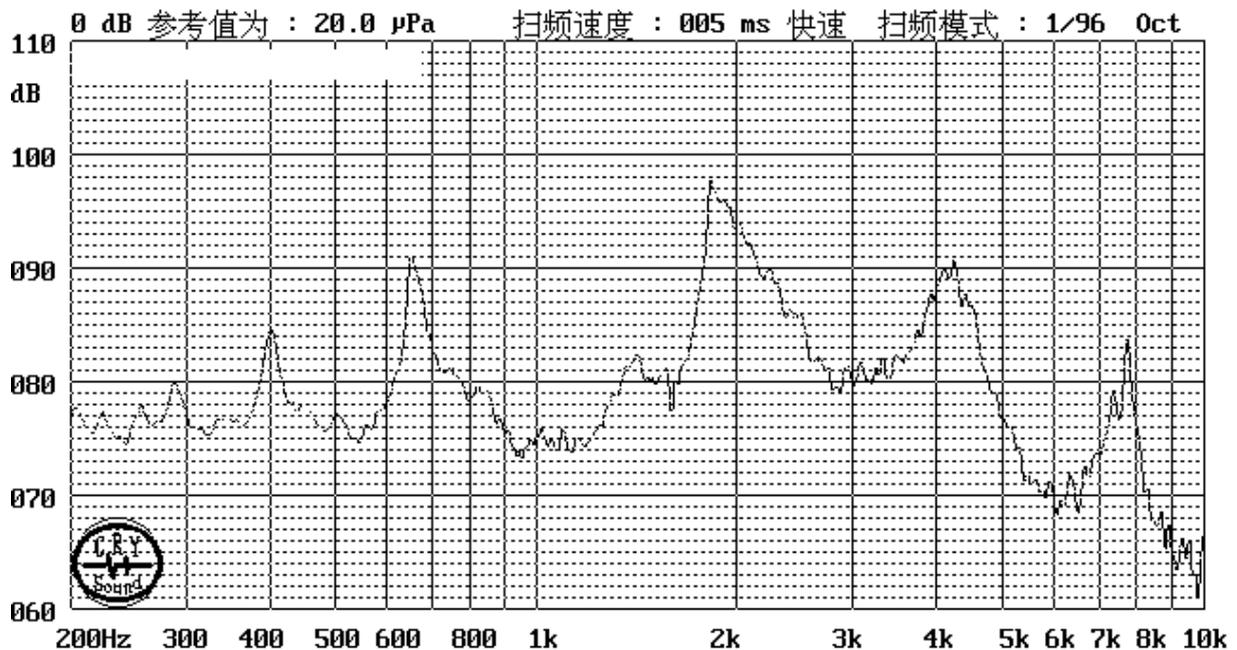
The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below (Recommend Driving Circuit)



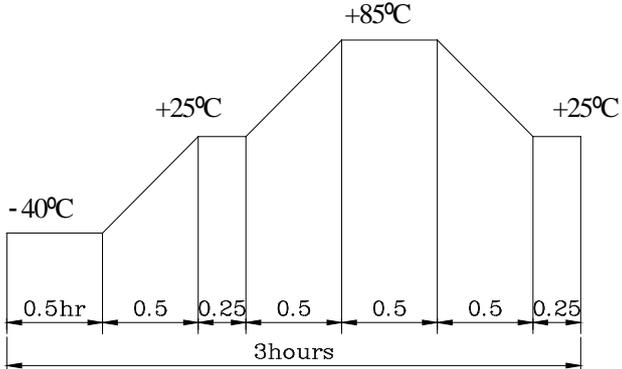
In the measuring test, buzzer is placed as follows:



## E. Typical Frequency Response Curve



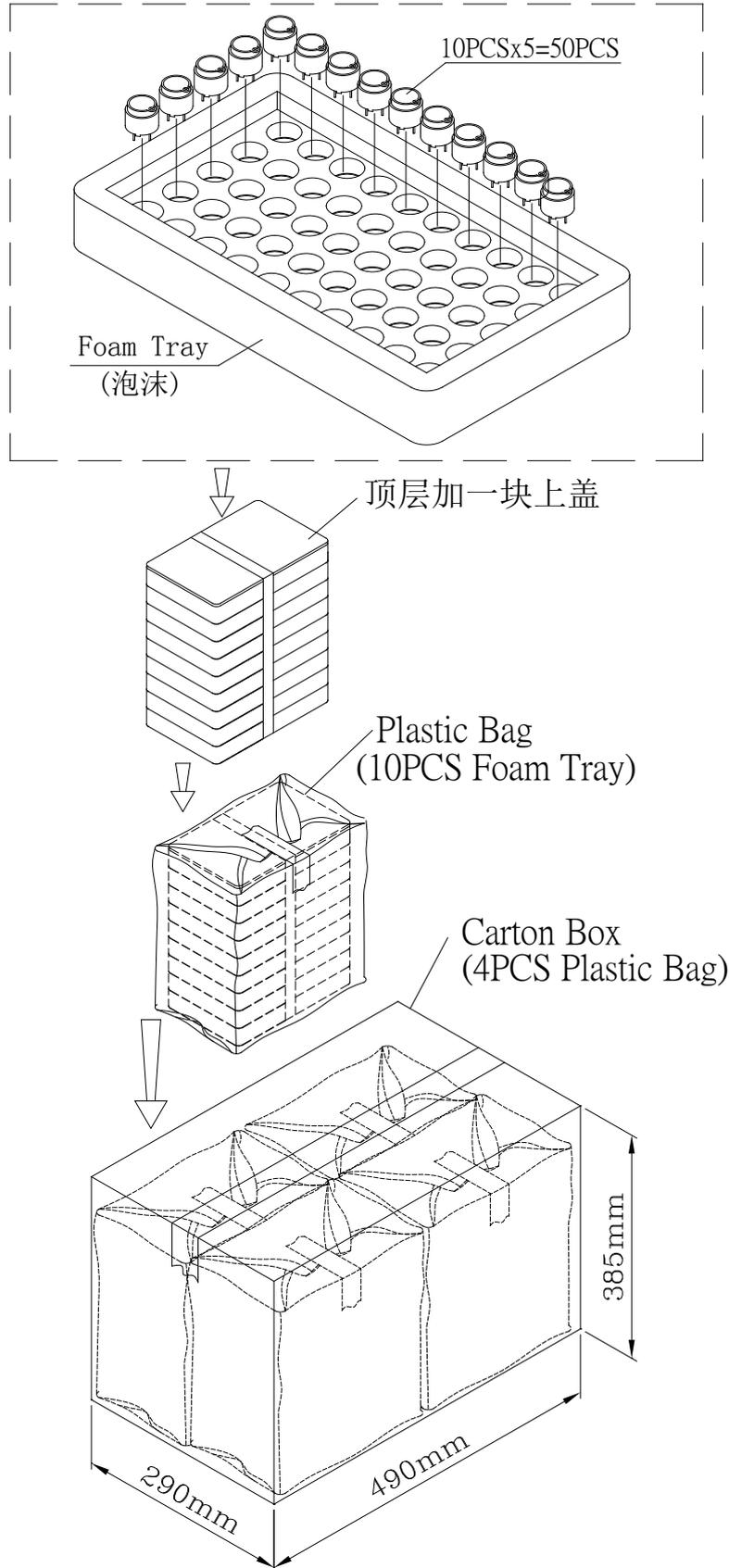
## F. RELIABILITY TEST

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with 85±2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
2	Low Temperature Test (Storage)	After being Placed in a chamber with -40±2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
3	Humidity Test	After being Placed in a chamber with 90-95% R.H. at 40±2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
4	Temperature Cycle Test	The part shall be subjected to 5 cycles. One cycle shall be consist of :  <p>The diagram shows a temperature cycle profile over a 3-hour period. It starts at -40°C for 0.5 hours, then ramps up to +25°C in 0.5 hours, holds at +25°C for 0.25 hours, ramps up to +85°C in 0.5 hours, holds at +85°C for 0.5 hours, ramps down to +25°C in 0.5 hours, holds at +25°C for 0.25 hours, and finally ramps down to -40°C in 0.5 hours. The total duration is 3 hours.</p> Allowable variation of SPL after test: ±10dB.
5	Drop Test	Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm . Allowable variation of SPL after test: ±10dB.
6	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours . Allowable variation of SPL after test: ±10dB.
7	Solderability Test	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300±5°C for 3±1 seconds . 90% min. lead terminals shall be wet with solder (Except the edge of terminals).
8	Terminal Strength Pulling Test	The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds. No visible damage and cutting off.

### TEST CONDITION.

Standard Test Condition	:	a) Temperature : +5 ~ +35°C	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般测试条件	:	a) 温度 : +5 ~ +35°C	b) 湿度 : 45-85%	c) 气压 : 860-1060mbar
Judgment Test Condition	:	a) Temperature : +25 ± 2°C	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
争议时测试条件	:	a) 温度 : +25 ± 2°C	b) 湿度 : 60-70%	c) 气压 : 860-1060mbar

## G. PACKING STANDARD



Foam Tray	230mmx135mmx35mm	1x50PCS=50PCS
Plastic Bag		10x50PCS=500PCS
Carton Box	490mmx290mmx385mm	4x500PCS=2000PCS