



# **Round Piezo Buzzer**

**Ø13.8x7.5 mm**

**With pins**

**CC138P075P-4000**

## **Revision**

<b>Date</b>	<b>Version</b>	<b>Status</b>	<b>Changes</b>	<b>Approver</b>
2017/12/15	V0.1	Draft	First release	LC
2017/12/27	V0.2	Draft	Added packing information	LC

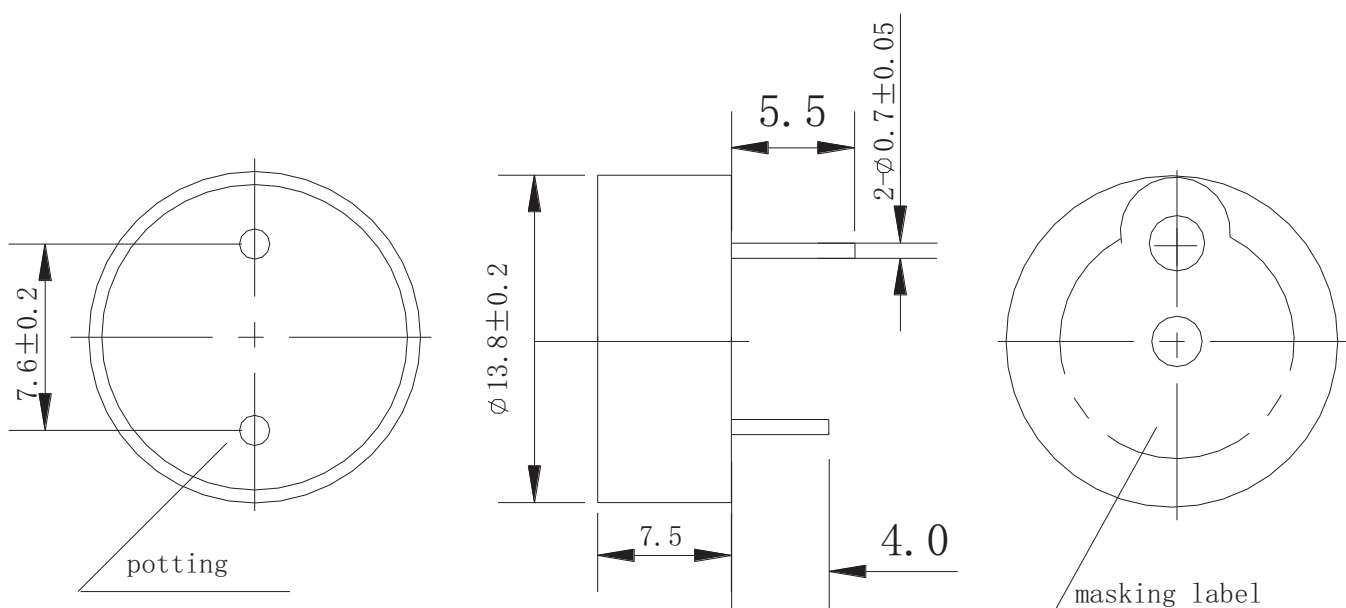
## A. Scope

This specification applies Piezo buzzer

## B. Specification

1	Oscillation Frequency	KHz	4.0 ±0.5	
2	Operating Voltage	VDC	6 ~ 16	
3	Rated Voltage	VDC	12	
4	Current Consumption	mA	MAX. 8	at Rated Voltage
5	Sound Pressure Level	dB	MIN. 85	at 10cm at Rated Voltage
6	Tone Nature		Constant	
7	Operating Temperature	°C	-20~ +70	
8	Storage Temperature	°C	-30 ~ +80	
9	Dimension	mm		See appearance drawing
10	Weight (MAX)	gram		
11	Housing Material		PPO( Black )	
12	Leading Pin			See appearance drawing
13	Environmental Protection Regulation		RoHS	

## C. Appearance drawing



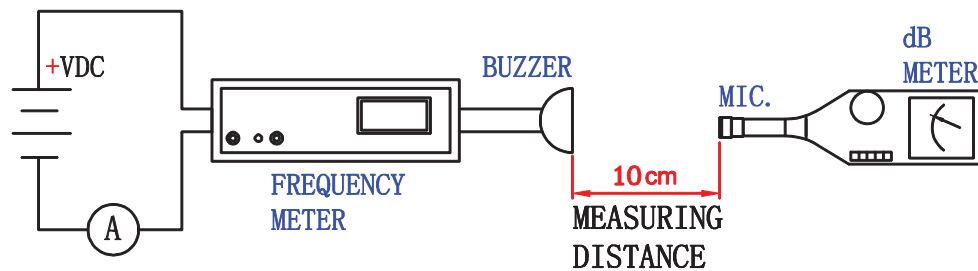
## D. Testing method

### Standard Measurement conditions

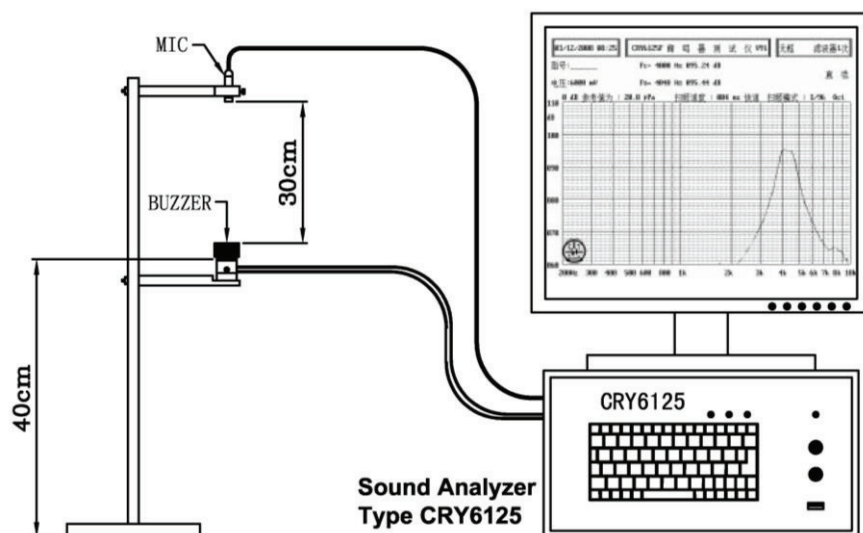
Temperature:  $25 \pm 2^\circ\text{C}$  Humidity: 45-65%

### Acoustic Characteristics

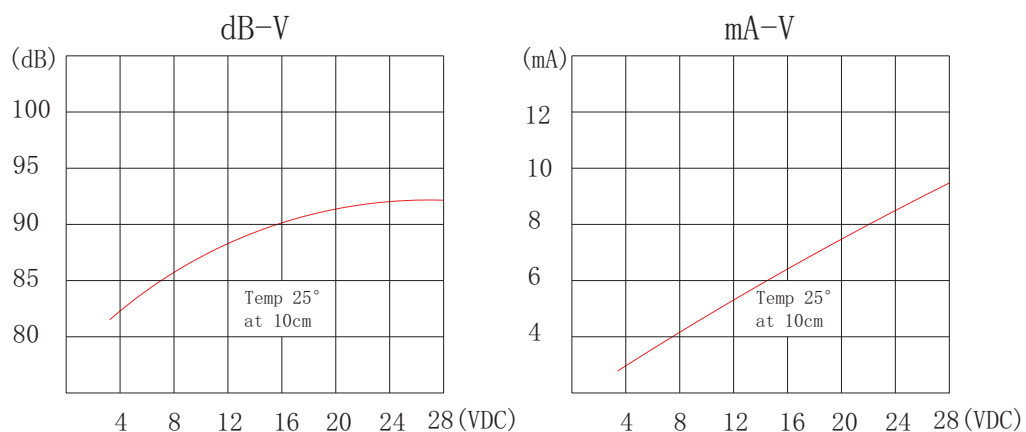
The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below



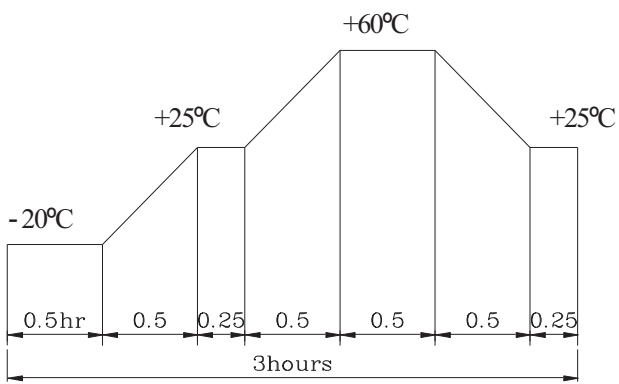
In the measuring test, buzzer is placed as follows:



## E. Voltage / current / sound pressure characteristics



## F. Reliability test

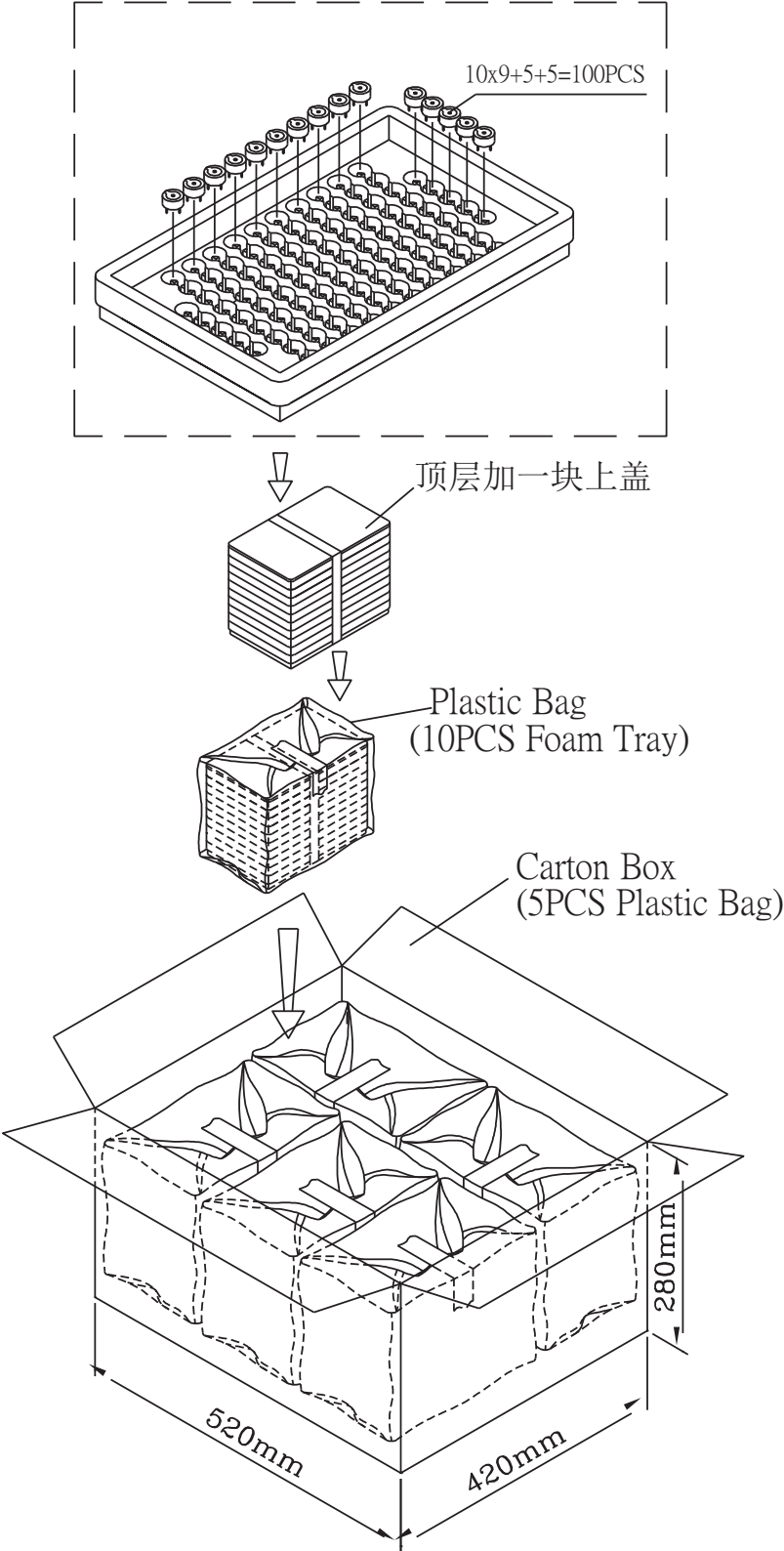
NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with $80 \pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$ .
2	Low Temperature Test (Storage)	After being Placed in a chamber with $-30 \pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$ .
3	Humidity Test	After being Placed in a chamber with 90-95% R.H. at $40 \pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$ .
4	Temperature Cycle Test	<p>The part shall be subjected to 5 cycles. One cycle shall be consist of :</p>  <p>Allowable variation of SPL after test: <math>\pm 10\text{dB}</math>.</p>
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: $\pm 10\text{dB}$ .
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: $\pm 10\text{dB}$ .
7	Solderability Test	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+300 \pm 5^{\circ}\text{C}$ for 3 $\pm$ 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 :  $+5 \sim +35^{\circ}\text{C}$  b) Humidity : 45-85% c) Pressure : 860-1060mbar

Judgment Test Condition : a) Temperature :  $+25 \pm 2^{\circ}\text{C}$  b) Humidity : 60-70% c) Pressure : 860-1060mbar

G. Packing standard



Foam Tray	240mmx160mmx30mm	1x100PCS=100PCS
Plastic Bag		10x100PCS=1000PCS
Carton Box	520mmx420mmx280mm	5x1000PCS=5,000PCS