



# SPECIFICATION

## FOR APPRONAL

Customer : \_\_\_\_\_

Product Name : SMD Buzzer  
\_\_\_\_\_

Model Name : VS1030A  
\_\_\_\_\_

Drawing No. : VS20181215016  
\_\_\_\_\_

### Signature of Voise

Approved by	Checkde by	Issued by	Date



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### 1. Revision

Rev.No	Date	Page	Description of Revision
1.0	2018/12/15		Preliminary



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## 2. Scope

This product specification is applied to the Magnetic Buzzer in alarm systems. Please contact us when using this product for any other applications than described in the above.

## 3. General Characteristics

- 3.1 Dimension : 10x10 mm
- 3.2 Height : 3 mm
- 3.3 Weight : 0.5 g
- 3.4 Operating Temperature : -30~+80°C without loss of function
- 3.5 Store Temperature : -40~+90°C without loss of function
- 3.6 Environmental protection rule :ROHS

## 4. Electrical and Acoustic Characteristics.

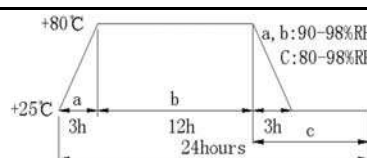
Test condition :15 ~ 35 °C Temp., 45% ~ 85% RH,86~106 kPa Refer to IEC60268-1

No	Items	Specification
1	Oscillation Frequency	2700 Hz
2	Operating Voltage	2.0 ~5.0 Vo-p
3	Rated Voltage	3.0 Vo-p
4	Min Sound Pressure Level	85dB at 10cm Rated Voltage/2700Hz,quare wave 1/2duty
5	Max Current Consumption	100mA at Rated Voltage/2700Hz,quare wave 1/2duty
6	Coil Resistance	17.5 ± 3Ω
7	Housing Material	LCP
8	Color	Black
9	Pad plating	Sn

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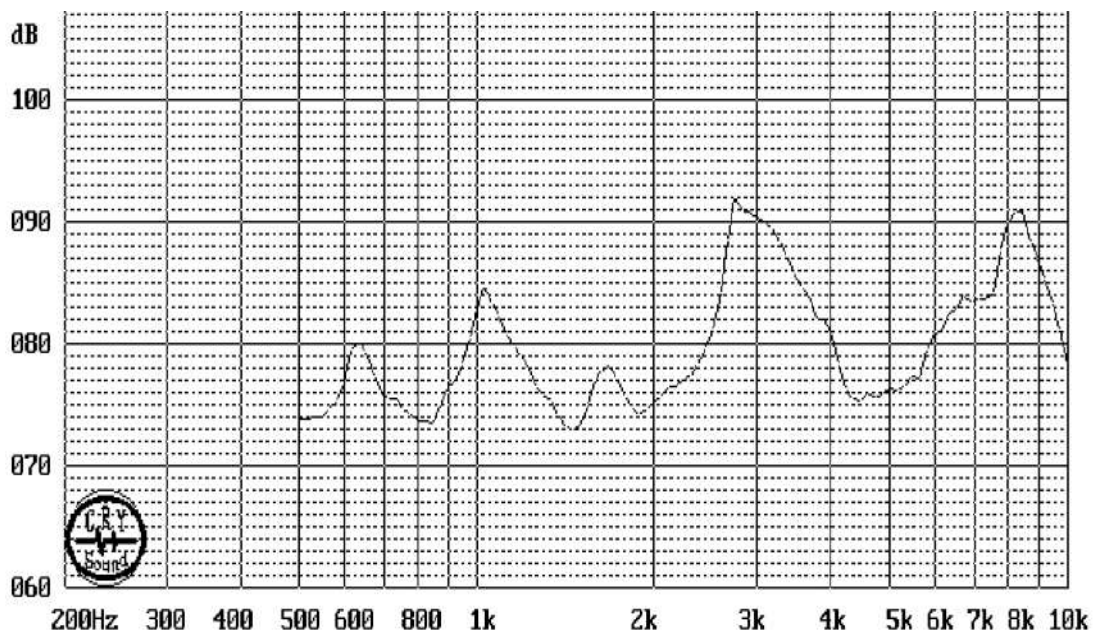
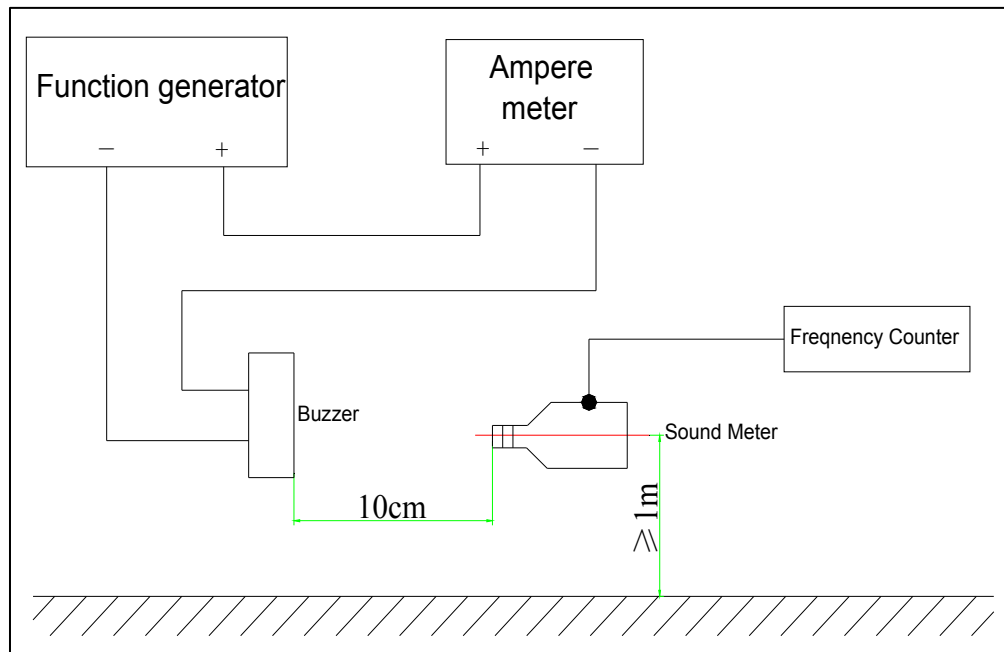
## 5. Reliability Test

After test(1~5item), the buzzer S.P.L . difference shall be within  $\pm 10\text{dB}$ , and the appearance not exist any change to be harmful to normal operation

No	Items	Specification
1	High Temp.Test	After being placed in a chamber at $+80\pm 2\text{ }^\circ\text{C}$ for 96h and then being placed in natural condition for 4h, and then check.
2	Low Temp.Test	First being placed in a chamber at $-30\pm 2\text{ }^\circ\text{C}$ for 96h and then being placed in natural condtion for 4h, and then check.
3	Temp./Humidity Test	The buzzer shall be subjected to 5 cycles One cycle shall be 24 huors and consist of and then being placed in natural for 4h ,and then check.  <p>The diagram shows a temperature cycle starting at +25°C, rising to +80°C (segment 'a', 3h), staying at +80°C (segment 'b', 12h), falling to a lower temperature (segment 'c', 3h), and returning to +25°C. Humidity levels are specified as 90-98%RH for segments 'a' and 'b', and 80-98%RH for segment 'c'. The total cycle duration is 24 hours.</p>
4	Thermal Shock Test	After being worked in a chamber at $+80\pm 2\text{ }^\circ\text{C}$ for 0.5 hour, then sounder shall be placed in a chamber at $-30\pm 2\text{ }^\circ\text{C}$ for 0.5 hour(1 cycle is the below diagram).The test duration is for 10 cycle.after being placed in natural condition for 4 hour.and then check.
5	Vibration Test	Being applied vibration of amplitude of 1.5mm with 10-55Hz band of vibration frequency,X.Y.Z.3 direction.2 hours each, total 6 hours.
6	Drop Test	Free drop fram 0.75 meter height to a board 40mm thick hard wood board 3 times in axes X.Y.Z. and be nothing mechanical damage. tatol 9 times.
7	Solderability	Lead terminals are immersed in solder bath of $+235\pm 5\text{ }^\circ\text{C}$ for $3\pm 1$ seconds.95% surface of lead pads must be covered with fresh solder.
8	Soldering Heat Resistance	The product is followed the reflow temperation curve to test its reflow thermostability.No interference in operation.
9	Terminal Strength Pulling	Lead pads shall be soldered on the pc board, and the force 9.8N(1.0kg) shall be applied behaid the part for 10 seconds.No damage and cutting off.
10	Continuous life test	The part shall be subjected to 72 hours at $+65\text{ }^\circ\text{C}$ with 3V Vo-p, 2731Hz applied.after being placed in natural condition for 4 hour.and then check. The SPL shall be within $\pm 10\text{dB}$ .
11	Intermittent life test	A duty cycle of 1 minute on, 1 minute off, a minimum of 5000 times at room temp.( $25\pm 10\text{ }^\circ\text{C}$ ) with 3V Vo-p, 2731Hz applied. after being placed in natural condition for 4 hour.and then check. The SPL shall be within $\pm 10\text{dB}$ .

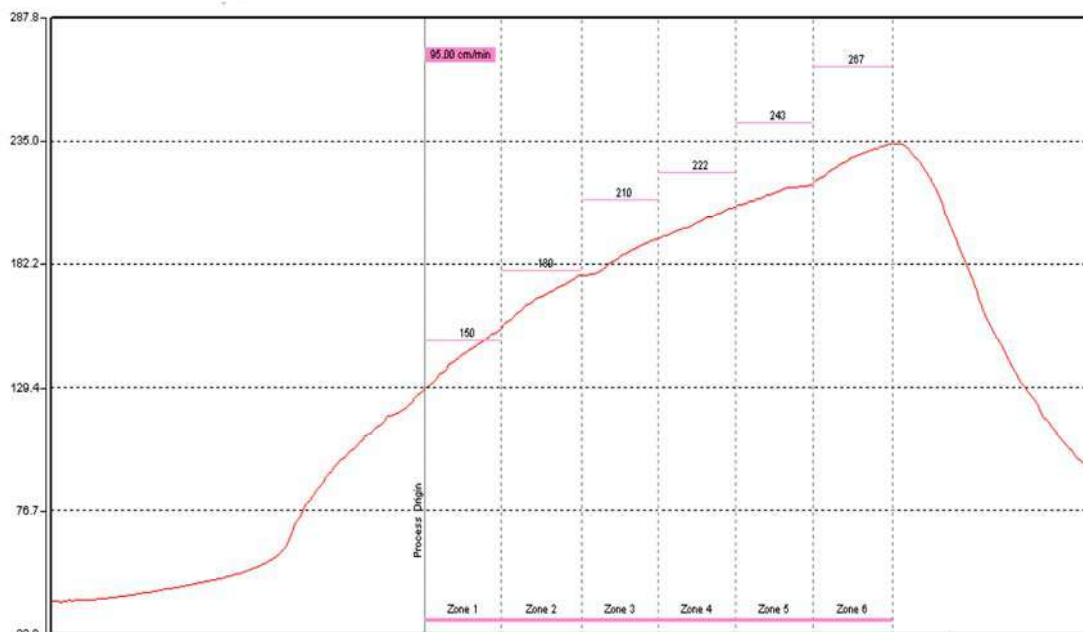
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## 6. Measurement Method & Frequency Response curve

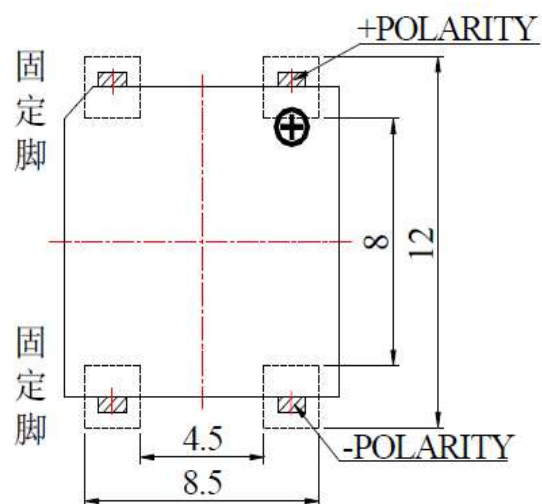


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### 7. Recommended temperature profile for reflow oven

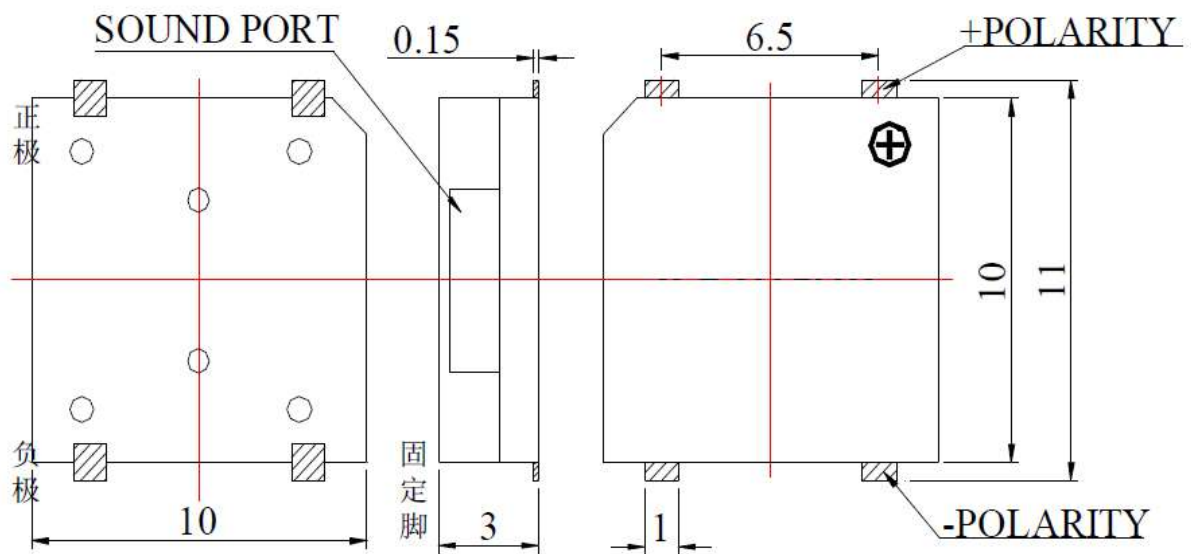


### 8. Recommended land pattern



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## 9. Dimensions



FIRST ANGLE PROJECTION

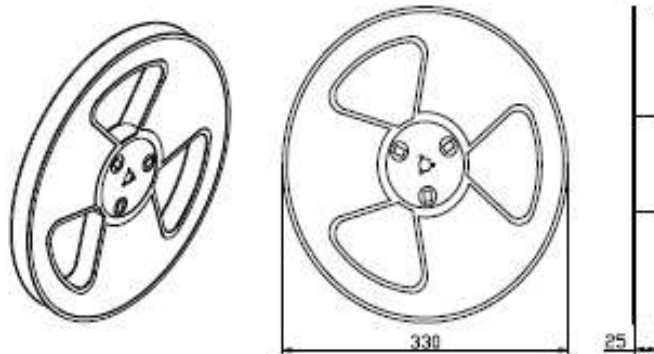
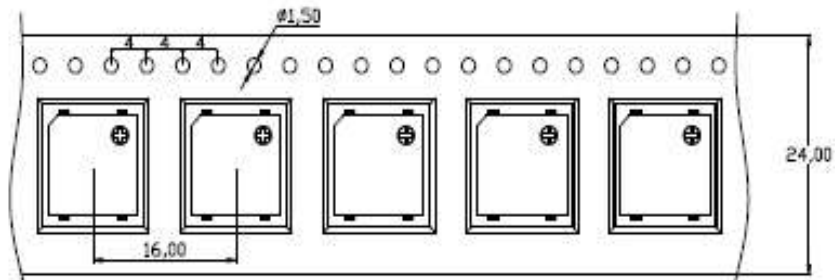


UNIT : mm

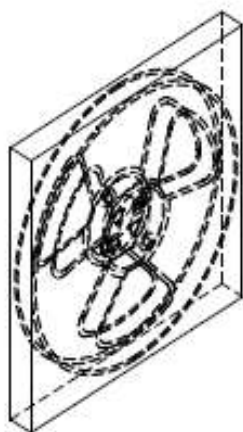
Tolerance :  $\pm 0.2$

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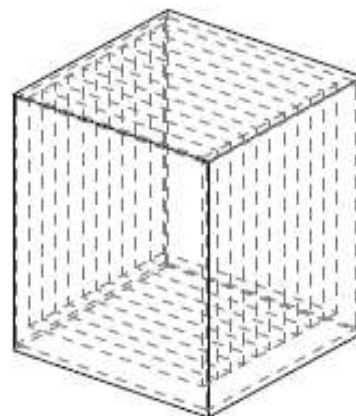
## 10. Packing



1 Reel: 800 Pcs



Inner Box  
1 Layer Reel



Carton Box  
(10 Inner Box)

1000 pcs per Reel

10 inner box for unit, 10 units per carto

Total:10000 pcs per carton

Size:350X280X350mm