



## **DEVETECH ELECTRONICS CO. LTD**

**SMD BUZZER**  
**CUSTOMER: DACHS ELECTRONICA**  
**P/N: DVZ9040EF27**

|             |  |
|-------------|--|
| DESIGNED BY |  |
| CHECKED BY  |  |
| APPROVED BY |  |

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## 1. Revision

| <b>Rev. No</b> | <b>Date</b> | <b>Page</b> | <b>Description</b> |
|----------------|-------------|-------------|--------------------|
| 1.0            | 2018/1/18   |             | Preliminary        |
|                |             |             |                    |
|                |             |             |                    |
|                |             |             |                    |
|                |             |             |                    |
|                |             |             |                    |
|                |             |             |                    |

## 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: 9x9 mm

3.2 Height: 4 mm

3.3 Weight: 0.6 g

3.4 Operating Temperature: -30~+75°C without loss of function

3.5 Store Temperature: -40~+85°C without loss of function

3.6 Environmental protection rule: RoHS

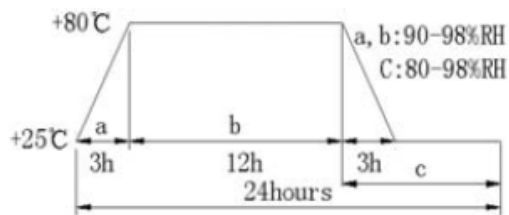
## 4. Electrical and Acoustic Characteristics

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

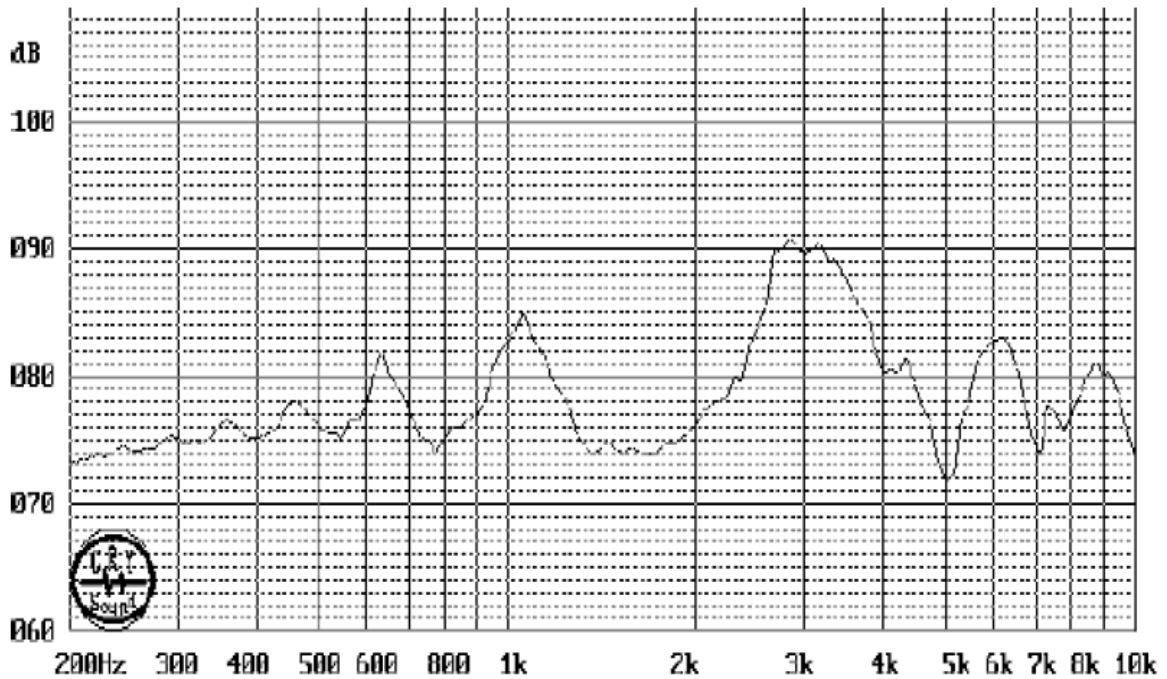
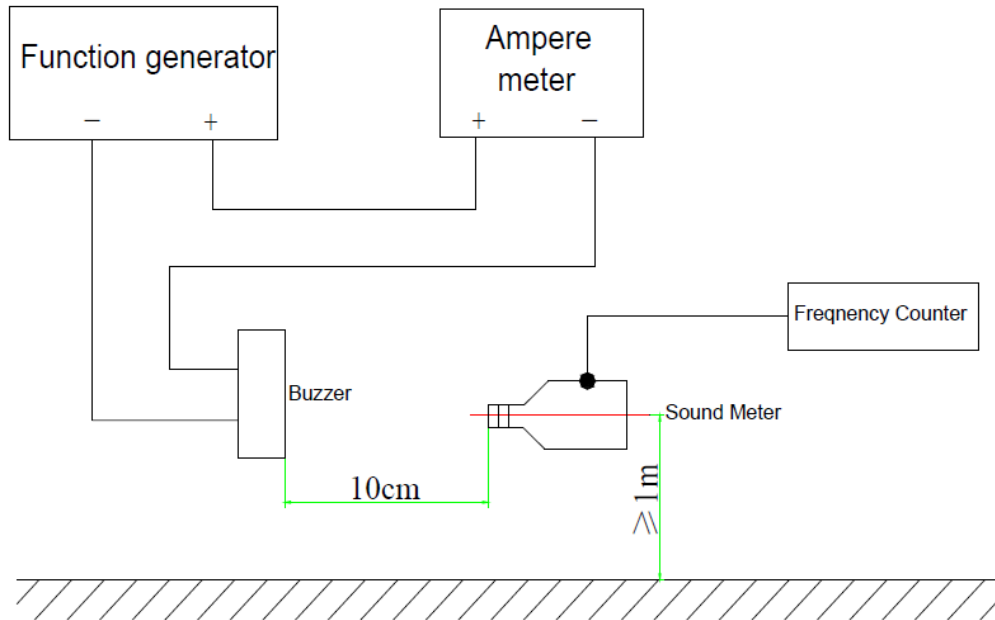
|   | Items                    | Specification   |
|---|--------------------------|---|
| 1 | Oscillation frequency    | 2730Hz  |
| 2 | Operating voltage        | 2.0 ~ 4.0 Vo-p  |
| 3 | Rated voltage            | 3.6 Vo-p  |
| 4 | Min sound pressure level | 85 dB at 10cm Rated Voltage 2730Hz square wave 1/2 duty |
| 5 | Max current consumption  | 100mA at Rated Voltage 2730Hz square wave 1/2 duty      |
| 6 | Coil resistance          | 16 ± 2.4Ω   |
| 7 | Housing material         | LCP   |
| 8 | Color                    | Black   |
| 9 | Pad plating              | Sn  |

## 5. Reliability Test

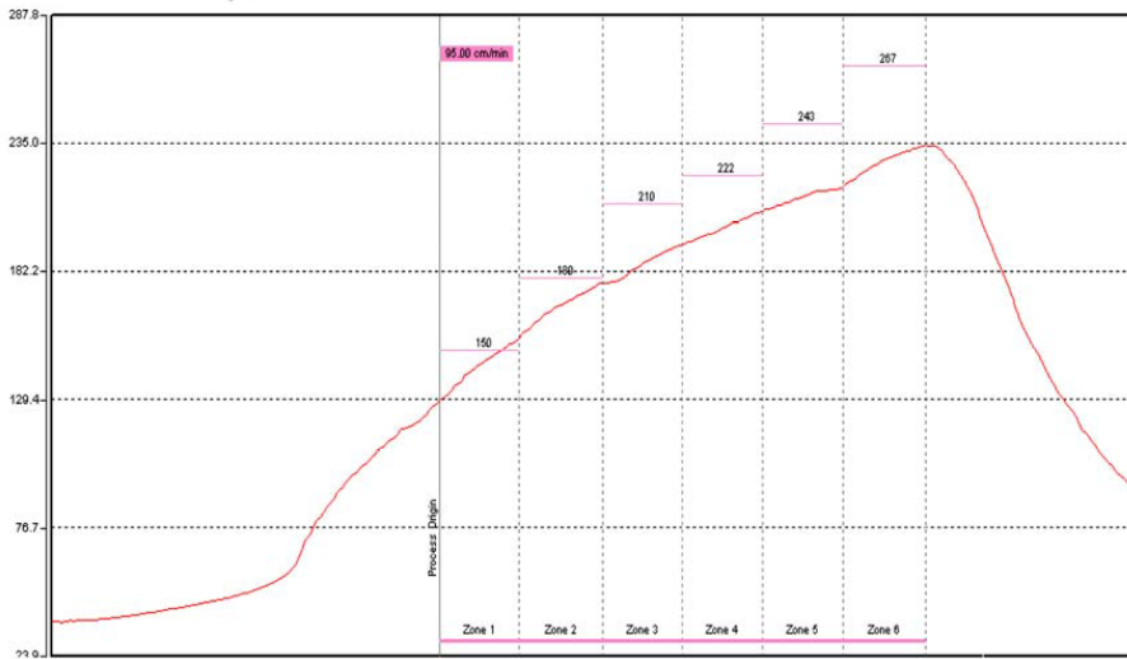
After test (1~5 item), the buzzer S.P.L difference shall be within  $\pm 10\text{dB}$ , and the appearance not exist any change to be harmful to normal operation.

| No | Items                     | Specification   |
|----|---------------------------|---|
| 1  | High Temp.Test            | After being placed in a chamber at $+80\pm 2^\circ\text{C}$ 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 $-30\pm 2^\circ\text{C}$ for 96h and then being placed in natural condition for 4h, and then check.  |
| 3  | Temp./ Humidity Test      | <p>The buzzer shall be subjected to 5 cycles, One cycle shall be 24 hours and consist of and then being placed in natural for 4h, and then check.</p>  <p>The diagram shows a 24-hour cycle. It starts at <math>+25^\circ\text{C}</math> for 3 hours (labeled 'a'). It then rises to <math>+80^\circ\text{C}</math> and stays there for 12 hours (labeled 'b'). It then falls back to <math>+25^\circ\text{C}</math> for 3 hours (labeled 'c'). Humidity conditions are specified as 'a, b: 90-98%RH' and 'C: 80-98%RH'.</p> |
| 4  | Thermal Shock Test        | After being worked in a chamber at $+80\pm 2^\circ\text{C}$ for 0.5 hour, then sounder shall be placed in a chamber at $-30\pm 2^\circ\text{C}$ 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 hours 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. Total 9 times.  |
| 7  | Solderability             | Lead terminals are immersed in solder bath of $+240\pm 5^\circ\text{C}$ 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 behind the part for 10 seconds. No damage and cutting off.   |
| 10 | Continuous life test      | The part shall be subjected to 72 hours at $+65^\circ\text{C}$ with 3.6V Vo-p, 2730Hz applied. after being placed in natural condition for 4 hours 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.( $25\pm 10^\circ\text{C}$ ) with 3.6V Vo-p, 2730Hz applied. after being placed in natural condition for 4 hours and then check. The SPL shall be within $\pm 10\text{dB}$ .  |

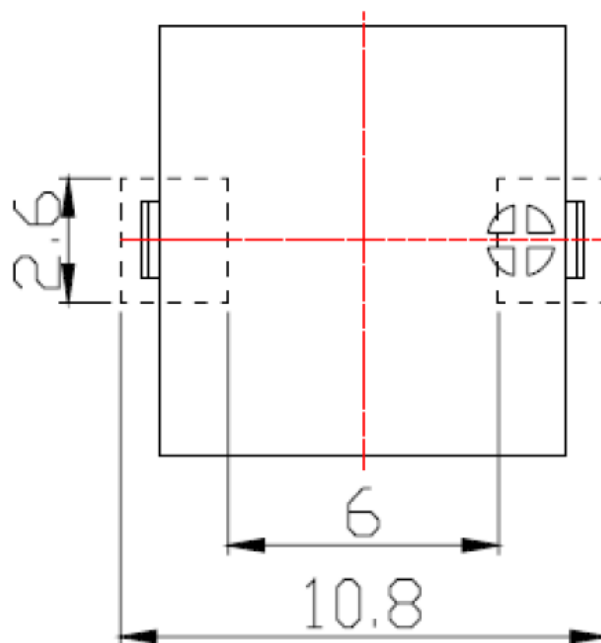
## 6. Measurement Method and Frequency Response Curve



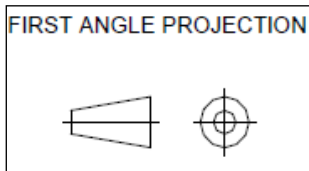
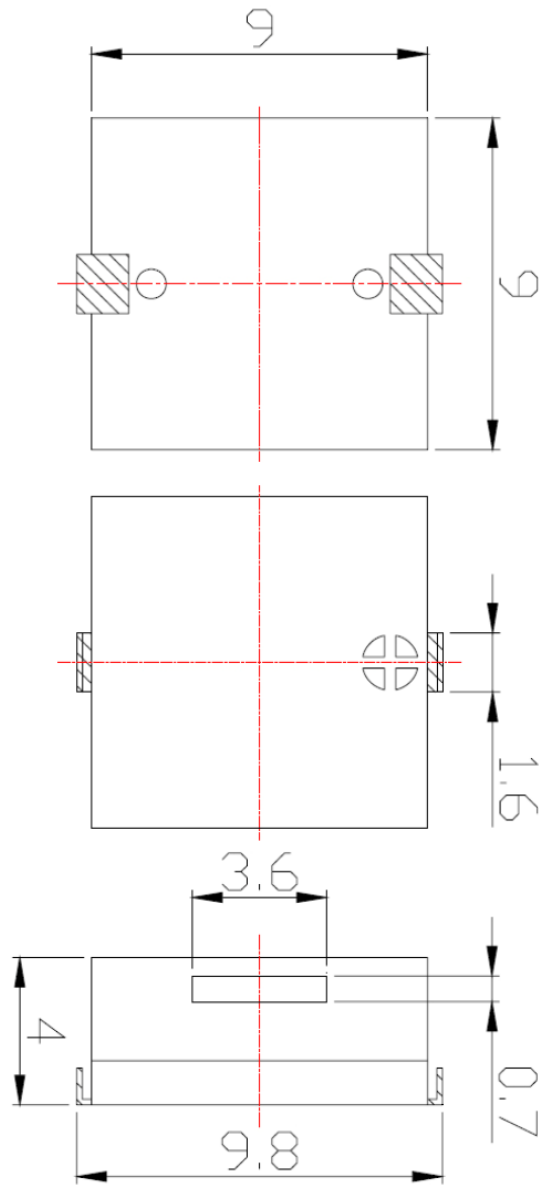
## 7. Recommended temperature profile for reflow oven



## 8. Recommended land pattern



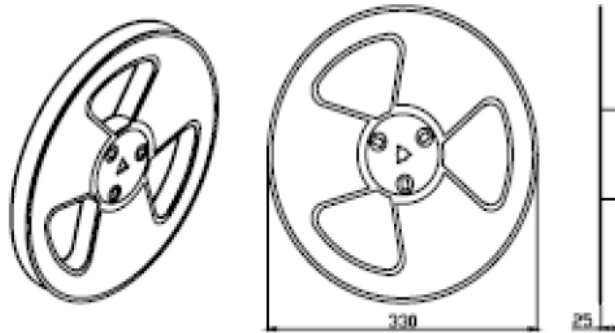
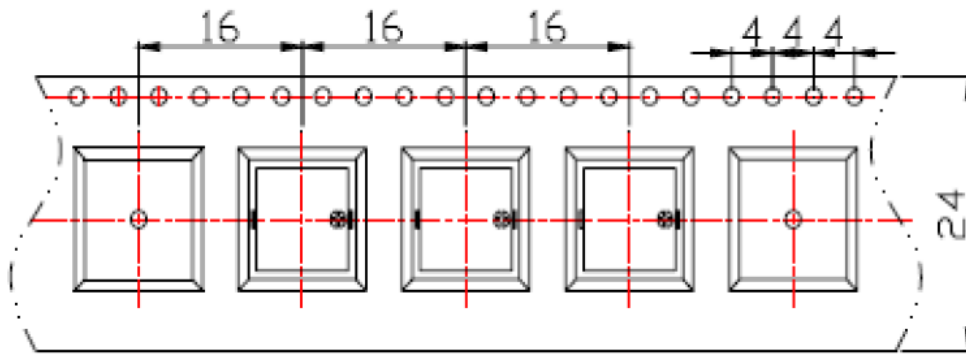
## 9. Dimensions



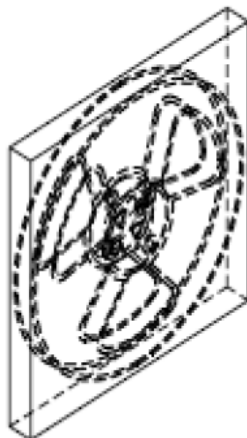
UNIT : mm

Tolerance :  $\pm 0.2$

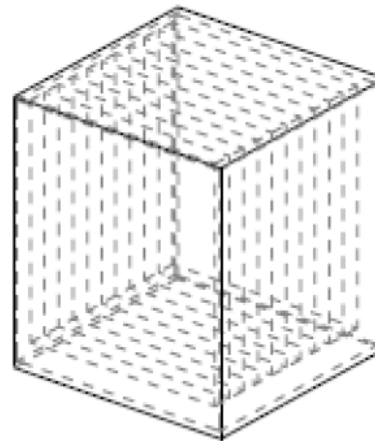
## 10. Packing



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





DEVETECH ELECTRONICS CO. LTD

## NOTES

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