

SPECIFICATION

FOR APPROVAL

Customer : _____

Product Name : SMD Buzzer _____

Model Name : VS9045F27V1.5 _____

Drawing No. : VS20230629010 _____

Signature of Voise

| Approved by | Checkde by | Issued by | Date |
|-------------|------------|-----------|------|
| | | | |

 福爱斯电子有限公司
VOISE ELECTRONICS CO.,LTD.

Address:No 96 Mogao Dongqian Lake Industial Area ningbo,China,
Tel:0086-0574-87773030;Fax:0086-0574-87471600 P.C.315121
<http://www.nbvoise.com> Email:sales@nbvoise.com

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| Model No.: | VS9045F27V1.5 | Drawing No. | VS20230629010 |

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 : 9 mm
- 3.2 Height : 4.5 mm
- 3.3 Weight : 0.8 g
- 3.4 Operating Temperature : -40~+80°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.

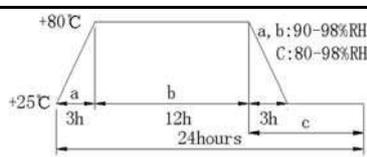
Test condition :15 ~ 35 °C Temp., 45% ~ 85% RH,86~106 kPa Refer to IEC60268-1

| No | Items | Specification |
|----|--------------------------|--|
| 1 | Oscillation Frequency | 2700 Hz |
| 2 | Operating Voltage | 1~3V |
| 3 | Rated Voltage | 1.5 V |
| 4 | Min Sound Pressure Level | 80 at 10cm Rated Voltage/2700Hz, Square wave 1/2duty |
| 5 | Max Current Consumption | 100mA at Rated Voltage/2700Hz, Square wave 1/2duty |
| 6 | Coil Resistance | 5.5 ± 1 Ω |
| 7 | Housing Material | LCP |
| 8 | Color | Black |
| 9 | Pad plating | Sn |

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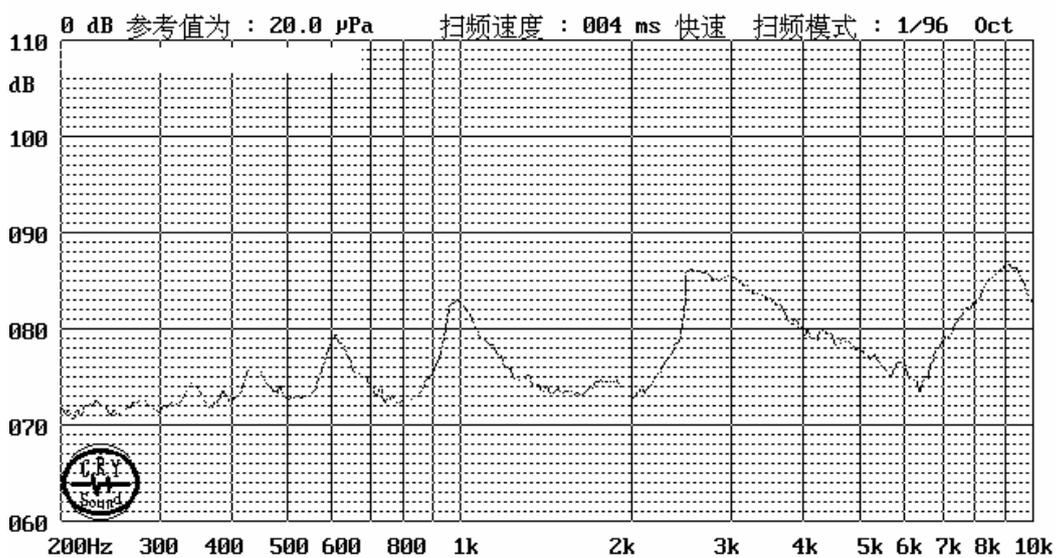
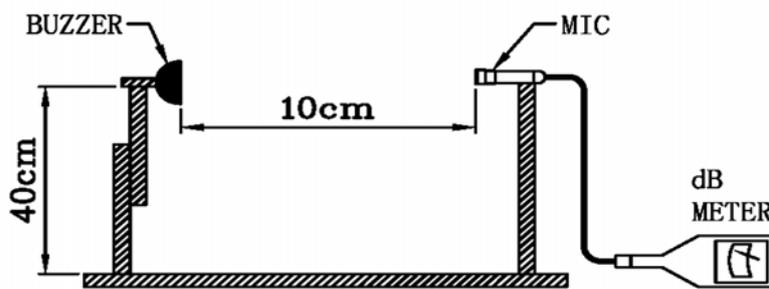
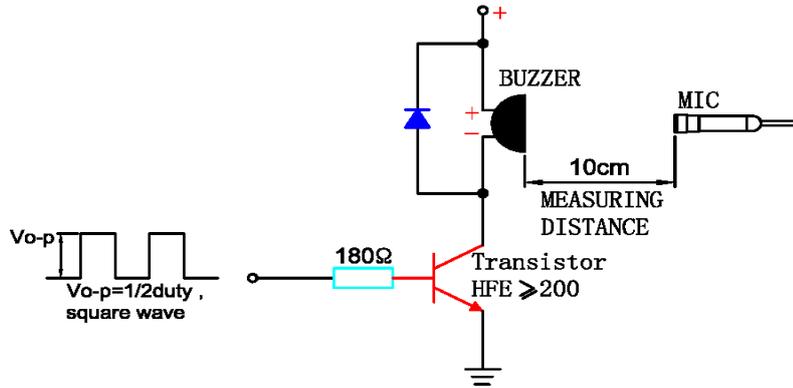
5. Reliability Test

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 $-40\pm 2\text{ }^\circ\text{C}$ for 96h and then being placed in natural condition for 4h, and then check. |
| 3 | Temp./Humidity Test | 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.  |
| 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 $-40\pm 2\text{ }^\circ\text{C}$ 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. atol 9 times. |
| 7 | Solderability | Lead terminals are immersed in solder bath of $+235\pm 5\text{ }^\circ\text{C}$ for 3 ± 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 $+85\text{ }^\circ\text{C}$ with 3V Vo-p, 2700Hz 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, 2700Hz applied. after being placed in natural condition for 4 hour.and then check. The SPL shall be within $\pm 10\text{dB}$. |

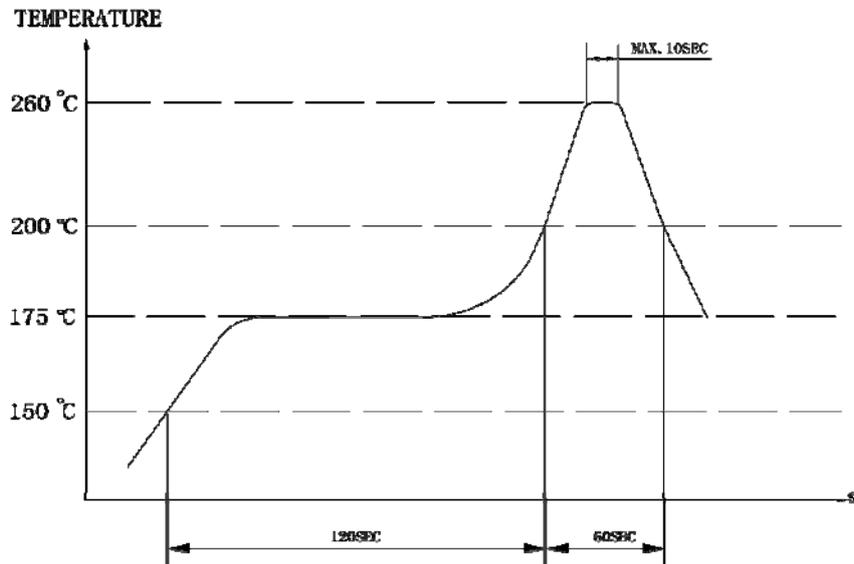
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6. Measurement Method & Frequency Response curve



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7. Recommended temperature profile for reflow oven



(1) Recommendable reflow soldering condition is as follows (Reflow soldering is twice)

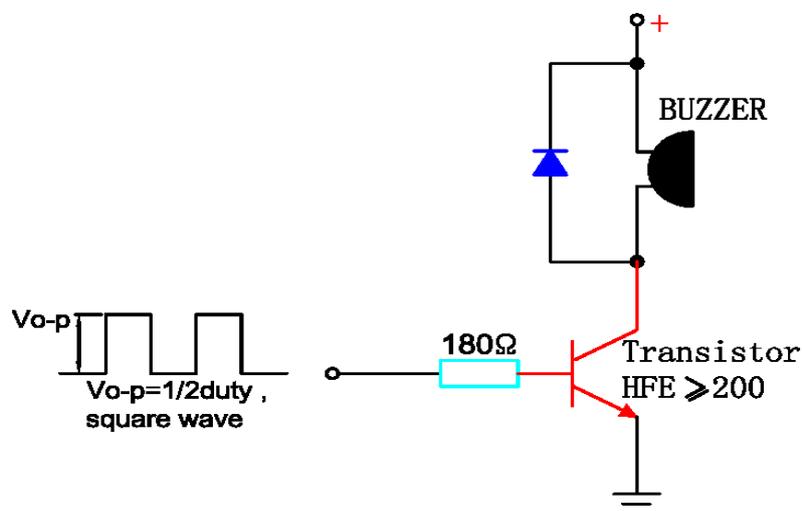
Note:It is requested that reflow soldering should be executed after heat of product goes down to normal.

Heat resistant line (Used when heat resistant reliability test is performed)

(2) Manual soldering

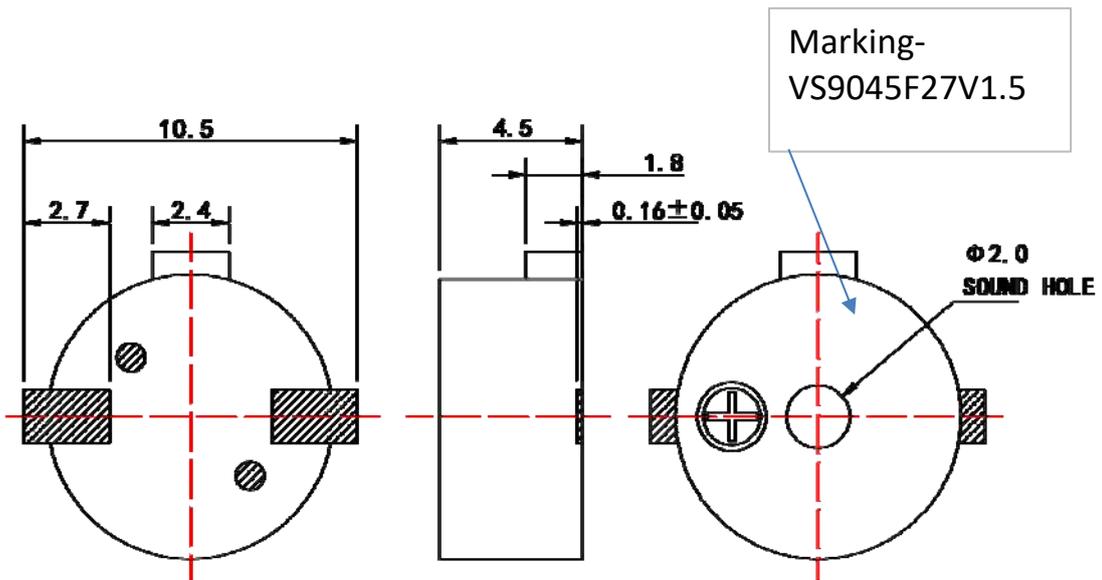
Manual soldering temperature 350°C within 5 sec.

8. Recommended Driving Circuit



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9. Dimensions



FIRST ANGLE PROJECTION

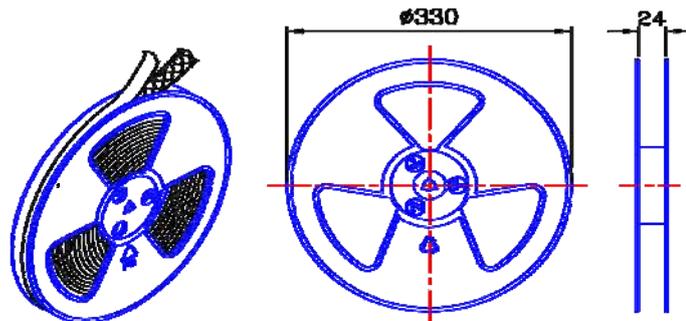


UNIT : mm

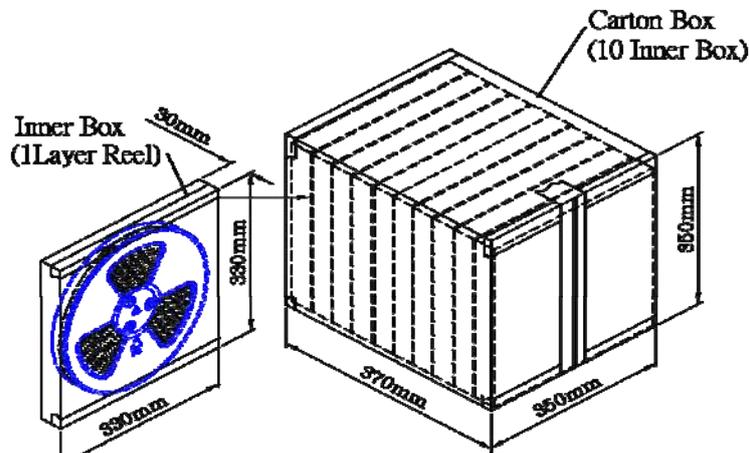
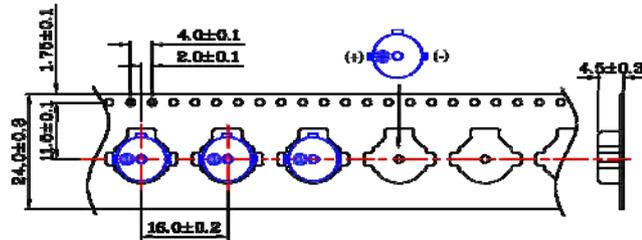
Tolerance : ±0.2

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10. Packing



1 Reel : 800PCS



| | | |
|------------|-------------------|--------------------|
| Inner Box | 330mmx330mmx30mm | 1x800PCS=800PCS |
| Carton Box | 350mmx350mmx370mm | 10x800PCS=8,000PCS |

1carton=8000pcs

1box=800pcs

800 pcs per Reel

10 inner box for unit, 10 units per cart

Total:8000 pcs per carton

Size:350X370X350mm