

# SPECIFICATION FOR APPRONAL

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| Customer   | - |  |
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Product Name: SMD Buzzer

Model Name : VS1325D

Drawing No. : VS20181215018

## Signature of Voise

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



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| Specification for SMD Buzzer | Page         | 2/8           |
|------------------------------|--------------|---------------|
| <u> </u>                     | Revision No. | 1.0           |
| Model No.: VS1325D           | Drawing No.  | VS20181215018 |

#### **Table of contents**

- 1. Revision
- 2. Scope
- 3. General Characteristics
- 4. Electrical and Acoustic Characteristics.
- 5. Reliability Test
- 6. Measurement Method & Frequency Response curve
- 7. Recommended temperature profile for reflow oven
- 8. Recommended land pattern
- 9. Dimensions
- 10. Packing

#### 1. Revision

| Rev.No | Date       | Page | Description of Revision |
|--------|------------|------|-------------------------|
| 1.0    | 2018/12/15 |      | Preliminary             |
|        |            |      |                         |
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| Specification for SMD Buzzer | Page         | 3/8           |
|------------------------------|--------------|---------------|
| <u> </u>                     | Revision No. | 1.0           |
| Model No.: VS1325D           | Drawing No.  | VS20181215018 |

#### 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 : 12.8x12.8 mm
 3.2 Height : 2.5 mm
 3.3 Weight : 0.5 g

3.4 Operating Temperature :  $-40\sim+120^{\circ}$ C without loss of function 3.5 Store Temperature :  $-40\sim+120^{\circ}$ C without loss of function

3.6 Environmental protection rule :RoHS

#### 4. Electrical and Acoustic Characteristics.

Test condition :15 ~ 35  $^{\circ}$ C Temp., 45% ~ 85% RH,86~106 kPa Refer to IEC60268-1

| No | Items                    | Specification                         |
|----|--------------------------|---------------------------------------|
| 1  | Rated Voltage            | 5 Vp-p                                |
| 2  | Operating Voltage        | 1-25Vp-p                              |
| 3  | Max Current Consumption  | 5 mA at 5Vp-p/Square Wave/4.1kHz      |
| 4  | Min Sound Preesure Level | 80dB at 10cm 5Vp-p/4.1kHz,Square wave |
| 5  | Capacitance              | 16000± 30%pF at 120Hz                 |
| 6  | Resonant Frequency       | 4100± 500Hz                           |
| 7  | Housing Material         | LCP                                   |
| 8  | Color                    | Black                                 |
| 9  | Pad plating              | Sn                                    |



| Specification for SMD Buzzer | Page         | 4/8           |
|------------------------------|--------------|---------------|
| <u> </u>                     | Revision No. | 1.0           |
| Model No.: VS1325D           | Drawing No.  | VS20181215018 |

# 5. Reliability Test

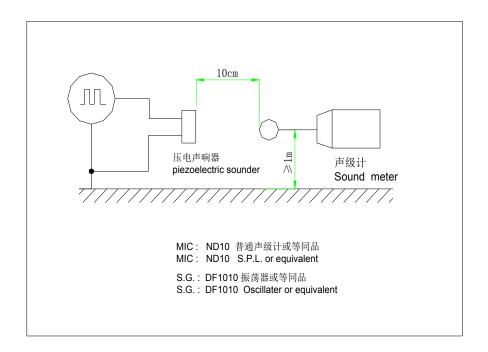
After test(1~5item), the buzzer S.P.L . difference shall be within  $\pm 10 dB$ , and the appearance not exist any change to be harmful to normal operation

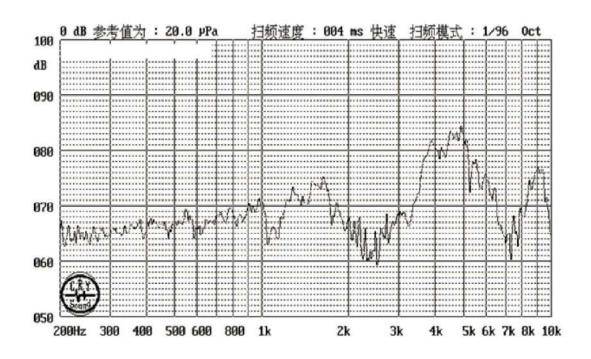
| No | Items                        | Specification  |  |
|----|------------------------------|--|--|
| 1  | High Temp.Test               | After being placed in a chamber at +85±2 $^{\circ}$ C for 100h and then being placed in natural condition for 4h, and then check.  |  |
| 2  | Low Temp.Test                | First being placed in a chamber at -40±2 °C for 100h and then being placed in natural condtion for 4h, and then check.   |  |
| 3  | Temp./Humidity<br>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.  One cycle shall be 24 huors and consist of and then being placed in natural for 4h ,and then check.                        |  |
| 4  | Thermal Shock<br>Test        | After being worked in a chamber at $+80\pm2$ °C for 0.5 hour, then sounder shall be placed in a chamber at $-30\pm2$ °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 +300±5℃ for 3±1 seconds.95% surface of lead pads must be covered with fresh solder.  |  |
| 8  | Soldering Heat<br>Resistance | The product is followed the reflow temperation curve to test its reflow thermostability.No interference in operation.  |  |
| 9  | Terminal<br>Strength Pulling | Lead pads shall be soldered on the pc board, and the force 9.8N(1.0kg) shall be applied behaind the part for 10 seconds.No damage and cutting off.   |  |
| 10 | Continuous life test         | The part shall be subjected to 72 hours at +65°C with 5V Vp-p, 4000Hz applied.after being placed in natural condition for 1000 hour.and then check. The SPL shall be within ±10dB.   |  |
| 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°C) with 3V Vo-p, 4000Hz applied. after being placed in natural condition for 4 hour.and then check. The SPL shall be within $\pm$ 10dB.                                       |  |



| Specification for SMD Buzzer | Page         | 5/8           |
|------------------------------|--------------|---------------|
| <u> </u>                     | Revision No. | 1.0           |
| Model No.: VS1325D           | Drawing No.  | VS20181215018 |

## 6. Measurement Method & Frequency Response curve

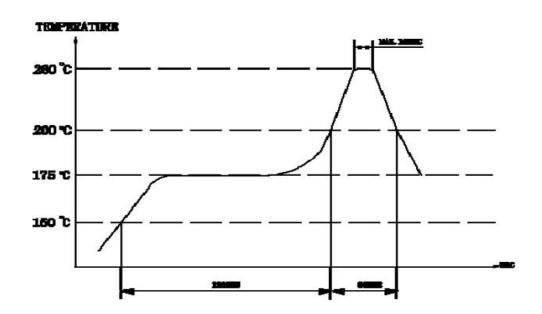




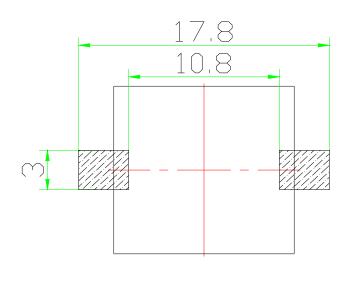


| Specification for SMD Buzzer | Page         | 6/8 |
|------------------------------|--------------|-----|
| <u> </u>                     | Revision No. | 5/8 |
| Model No.: VS1325D           | Drawing No.  | 0   |

# 7. Recommended temperature profile for reflow oven



## 8. Recommended land pattern

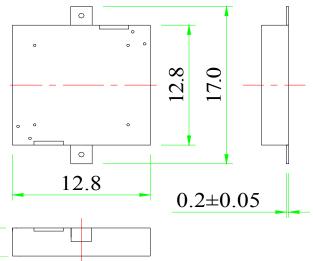


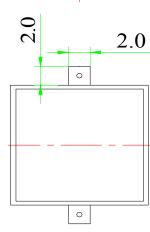


| Specification for SMD Buzzer | Page         | 7/8           |
|------------------------------|--------------|---------------|
| · <b>,</b>                   | Revision No. | 1.0           |
| Model No.: VS1325D           | Drawing No.  | VS20181215018 |

#### 9. Dimensions







FIRST ANGLE PROJECTION

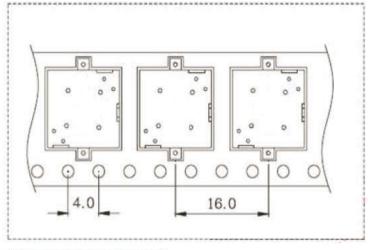


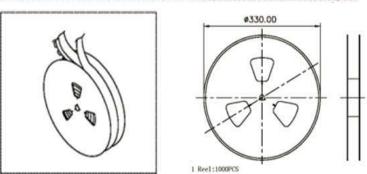
UNIT : mm
Tolerance : ±0.2

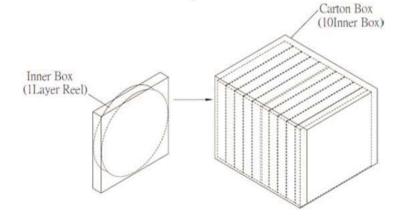


| Specification for SMD Buzzer | Page         | 8/8           |
|------------------------------|--------------|---------------|
| · · ·                        | Revision No. | 1.0           |
| Model No.: VS1325D           | Drawing No.  | VS20181215018 |

## 10. Packing







1000 pcs per Reel

10 inner box for unit, 10 units per carto

Total:10000 pcs per carton

Size:350X350X370mm