

SPECIFICATION

FOR APPRONAL

Customer : _____

Product Name : SMD Piezo Buzzer _____

Model Name : VS1230AF40 _____

Drawing No. : VS20200228012 _____

Signature of Voise

Approved by	Checkde by	Issued by	Date



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Specification for SMD Piezo Buzzer		Page	2/8
Model No.:	VS1230AF40	Revision No.	1.0
		Drawing No.	VS20200228012

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	2020/2/28		Preliminary

Specification for SMD Piezo Buzzer		Page	3/8
Model No.:	VS1230AF40	Revision No.	1.0
		Drawing No.	VS20200228012

2. Scope

This product specification is applied to the Piezo 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 : 12x12 mm
- 3.2 Height : 3 mm
- 3.3 Weight : 0.5 g
- 3.4 Operating Temperature : -30~+80℃ without loss of function
- 3.5 Store Temperature : -40~+85℃ without loss of function
- 3.6 Environmental protection rule :RoHS

4. Electrical and Acoustic Characteristics.

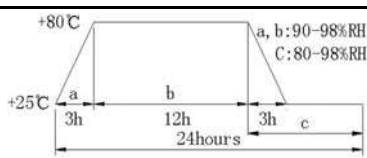
Test condition :15 ~ 35 °C Temp., 45% ~ 85% RH,86~106 kPa Refer to IEC60268-1

No	Items	Specification
1	Operating Voltage	5 Vo-p
2	Max.Allowable Voltage	25 Vo-p
3	Max Current Consumption	5 mA at 5Vo-p/Square Wave/4.0kHz
4	Min Sound Preesure Level	80dB at 10cm 5Vo-p/4.0kHz,Square wave
5	Capacitance	16000± 30%pF at 120Hz
6	Operating Frequency	4000± 500Hz
7	Housing Material	LCP
8	Color	Black
9	Pad plating	Sn

Specification for SMD Piezo Buzzer		Page	4/8
Model No.: VS1230AF40		Revision No.	1.0
		Drawing No.	VS20200228012

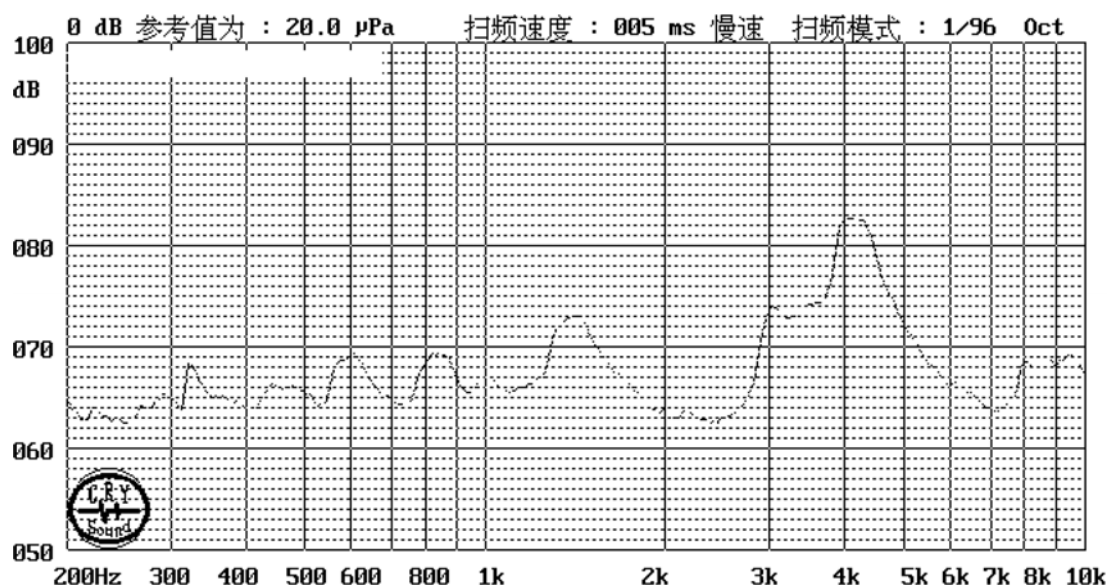
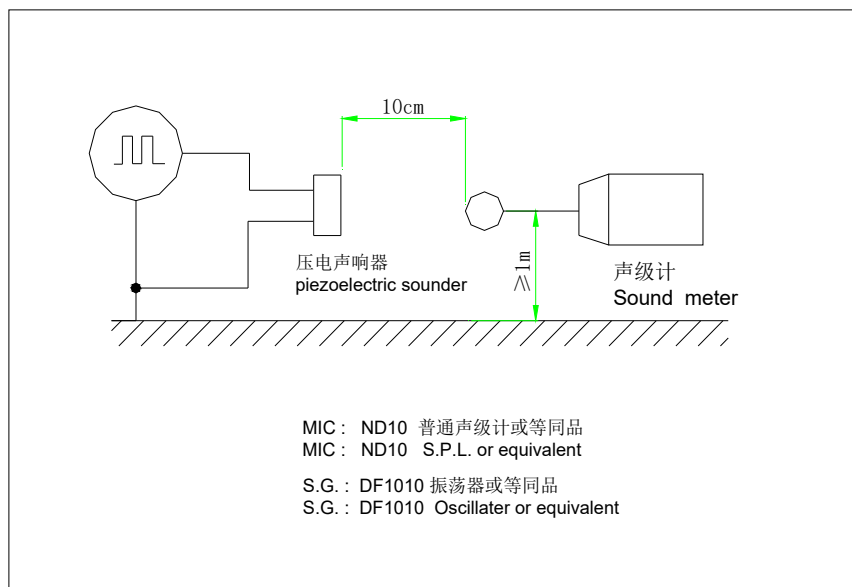
5. Reliability Test

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 $+85\pm 2^\circ\text{C}$ 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 $-40\pm 2^\circ\text{C}$ 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 cycle: One cycle shall be 24 huors and of and then being placed in natural for 4h ,and then check. 
4	Thermal Shock Test	After being worked in a chamber at $+80\pm 2^\circ\text{C}$ 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 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 $+300\pm 5^\circ\text{C}$ 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 $+65^\circ\text{C}$ with 5V Vp-p, 4000Hz applied.after being placed in natural condition for 1000 hour.and then check. The SPL shall be within $\pm 10\text{dB}$.

Specification for SMD Piezo Buzzer		Page	5/8
Model No.: VS1230AF40		Revision No.	1.0
		Drawing No.	VS20200228012

6. Measurement Method & Frequency Response curve

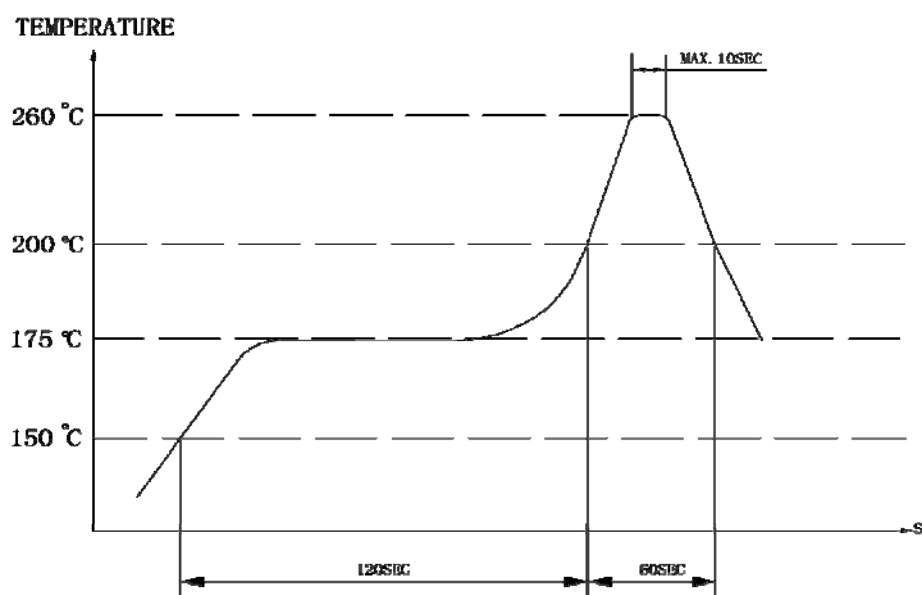


Specification for SMD Piezo Buzzer		Page	6/8
Model No.: VS1230AF40		Revision No.	5/8
		Drawing No.	VS20200228012

7. Recommended temperature profile for reflow oven

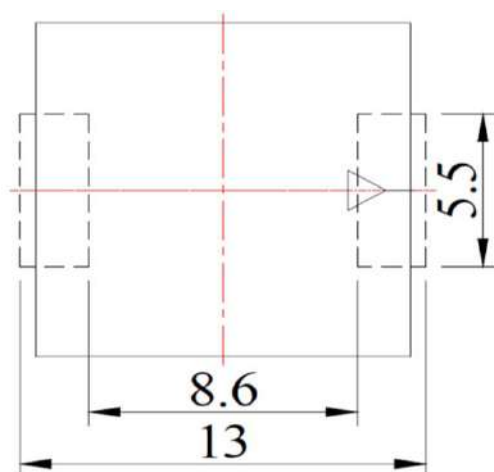
Recommendable reflow soldering condition is as follows (Reflow soldering is twice)

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



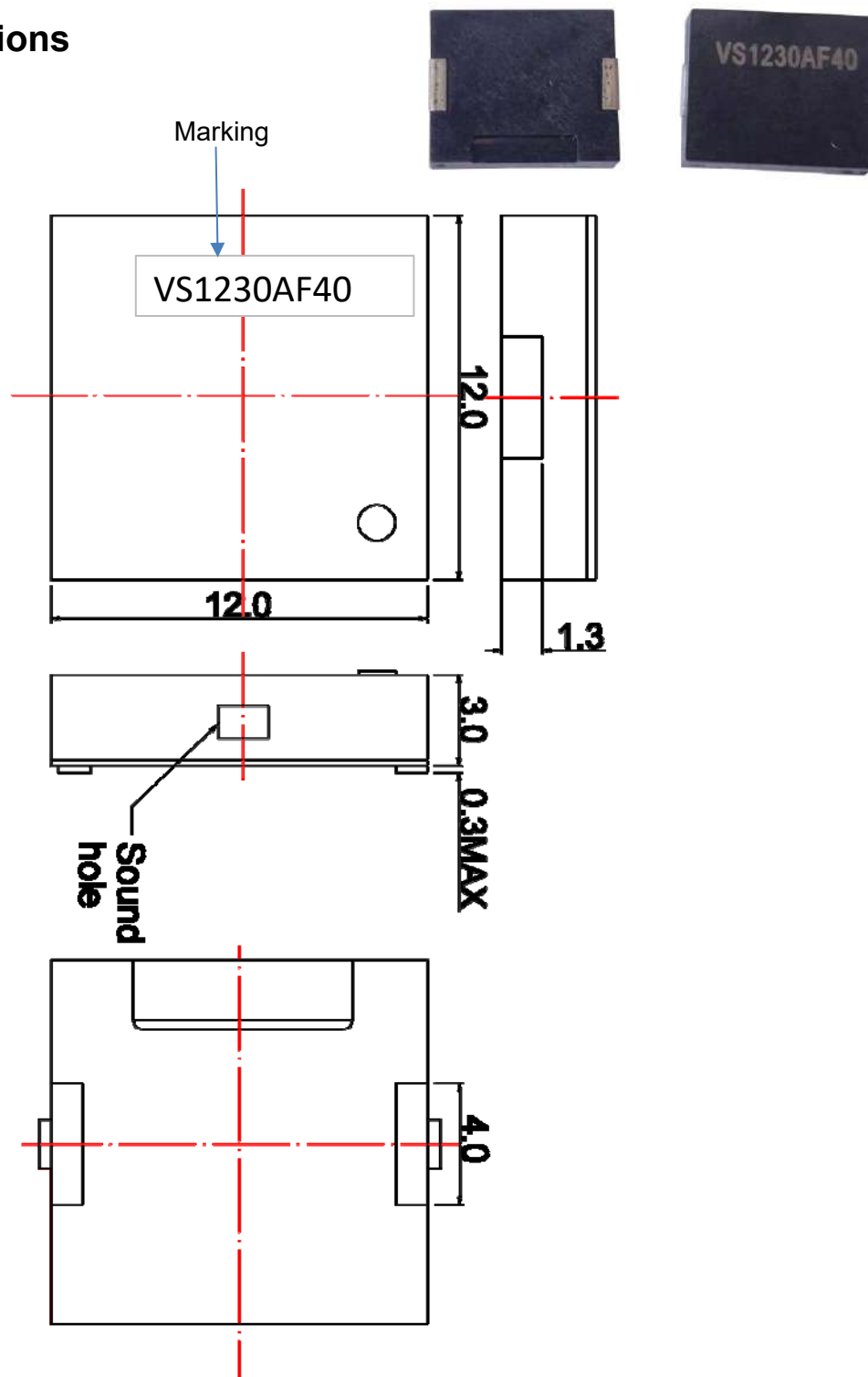
Heat resistant line (Used when heat resistant reliability test is performed)

8. Recommended land pattern



Specification for SMD Piezo Buzzer		Page	7/8
Model No.: VS1230AF40		Revision No.	1.0
		Drawing No.	VS20200228012

9. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance : ± 0.2

Specification for SMD Piezo Buzzer

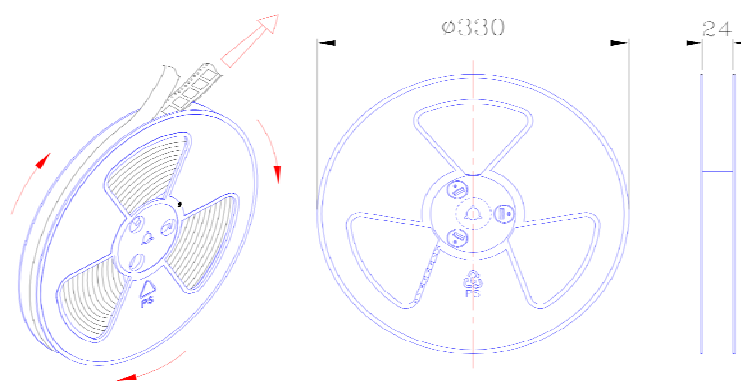
Page 8/8

Model No.: VS1230AF40

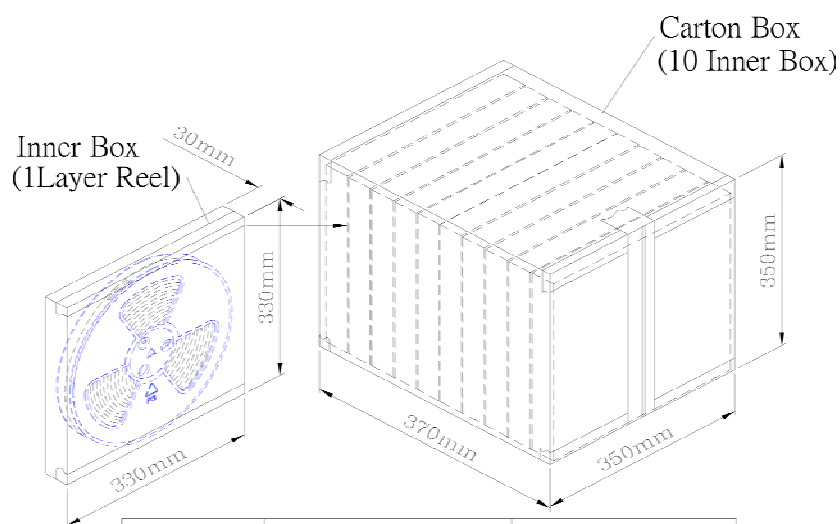
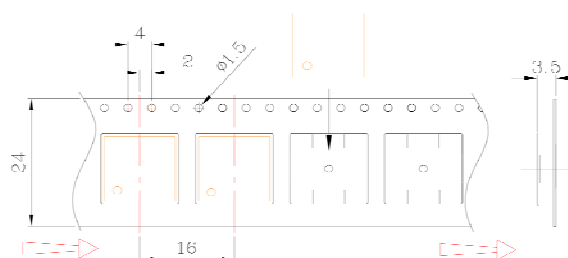
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10. Packing



1 Reel : 1000PCS



Inner Box	330mmx330mmx30mm	1x1000PCS=1000PCS
Carton Box	350mmx350mmx370mm	10x1000PCS=10,000PCS

1000 pcs per Reel

10 inner box for unit, 10 units per carton

Total:10000 pcs per carton

Size:370X350X350mm