



SPECIFICATION FOR PIEZO ELECTRIC BUZZER

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RoHS

Customer		Model Name	BSP1212-03H03-06 LF
Customer P/N		Product No.	056501
Date	15 May. 09	Issue No.	BS/TEP01.790A
Page	01 of 07	Issue Date	09/05/15

Approval:

- 1.Description
- 2.Dimension
- 3.Reliability Test
- 4.Tape on Reel Packing
- 5.Notice
- 6.History change record

Drawn by	Checked by	Approved by	Customer approved

BESTAR ELECTRONICS INDUSTRY CO.,LTD

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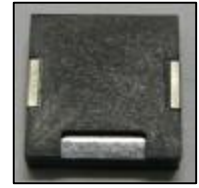
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BSP1212-03H03-06 LF



1. Description

1.1 The specification relates to the piezoelectric sounder intended to be used in alarm systems. Please contact us before using any of the products in the applications not described above.

1.2 Electrical and Mechanical Characteristics

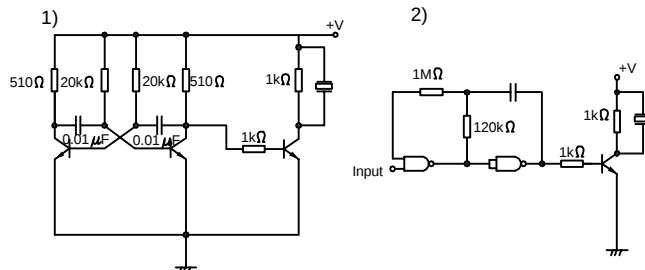
No.	Item	Specification
1.	Rated Voltage(Square Wave)	3 Vp-p
2.	Operating Voltage	1...25Vp-p
3.	a)Rated Current	max.1mA
4.	Capacitance at 120 Hz	16± 30%nF
5.	a)Sound Output at 4KHz,10cm	Min.75dB
6.	Resonant Frequency	4 KHz
7.	Operating Temperature	-40...+85 ° C
8.	Storage Temperature	-40...+85 ° C
9.	Weight	0.35g ± 25%
10.	Plating layer of plate	Tin
a)Value applying at rated voltage.(3Vp-p square wave,1/2duty)		

1.3 Test method:

1.31.Recommended Circuit

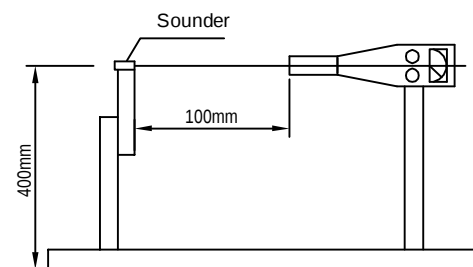
the following are examples of externally driven circuits.

- 1) Unstable multi-vibrator using Tr.
- 2) Circuits using inverters or NAND gates.



1.32.Standard test Fixture

No reaction in space with in 400mm in all direction



Date: 09/05/15

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Checked by: 邱 俊

Approved by: 李红元

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Piezo Sounder

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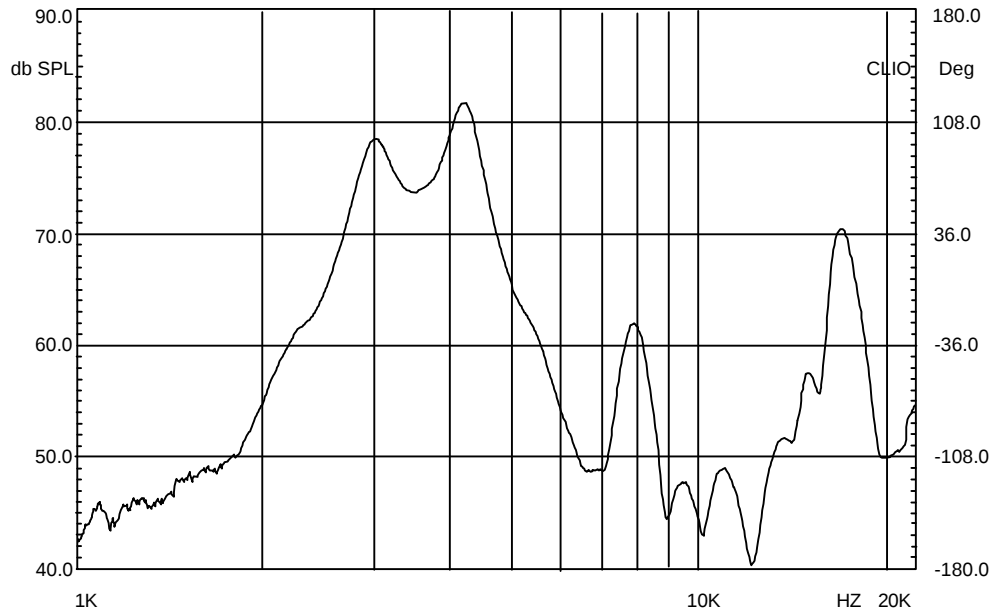
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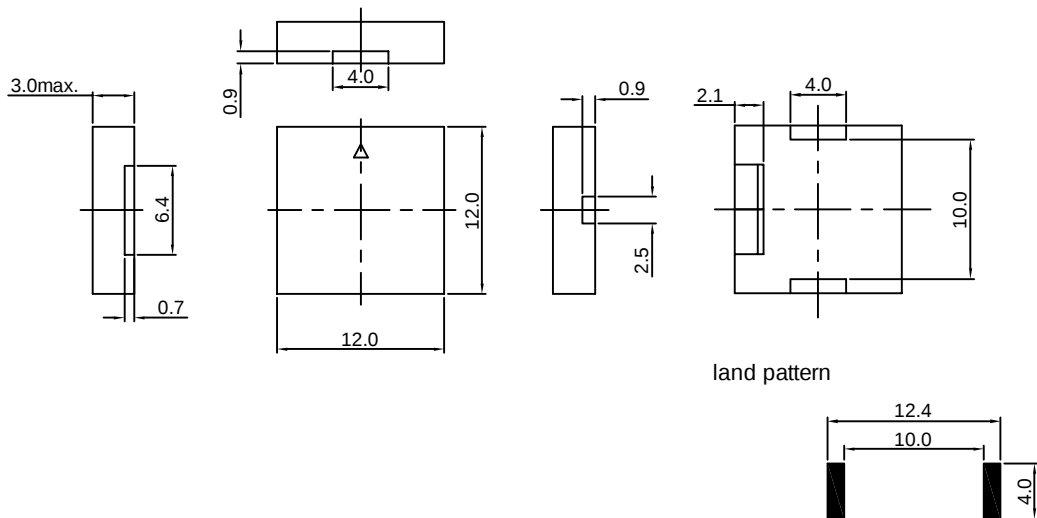
1.4 Frequency Response(Square wave 3Vp-p 10cm)



2. Dimension

Tolerance: ± 0.3

Unit:mm



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3. Reliability test

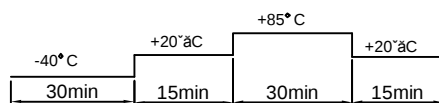
3.1 high temperature test

Temperature +85 ° C
Duration 96hrs

3.2 low temperature test

Temperature -40 ° C
Duration 96hrs

3.3 temperature cycle test



Cycles 5

3.4 Humidity test

Temperature +40 ° C
Relative Humidity 93%
Duration 96hrs

all these tests above should be measured after leaving normal temperature for 2hrs.

3.5 Vibration Test

Vibration Frequency 10~55Hz
Amplitude 1.52mm
Duration 2hrs each of 3 axis

3.6 Drop test

Height 70cm
(to 10mm thickness woodenboard)
Direction 3

3.7 Solderability

Temperature 255 ± 5° C
Duration 3 ± 0.5sec

3.8 Solder Heat Resistance

Temperature 255 ± 10° C
Duration 30sec

Notice: All specification must be satisfied in this condition.

SPL: allowable deviation ± 5dB of the initial value after testing

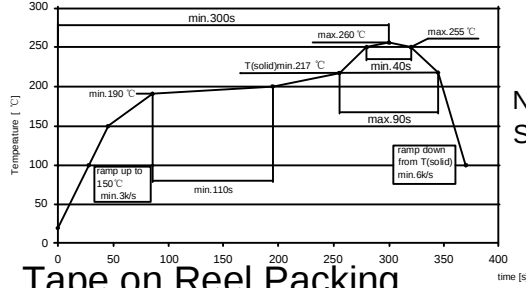
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3.9 Recommended Temp. Profile for Reflow Oven

Temperature profile for a lead-free reflow process

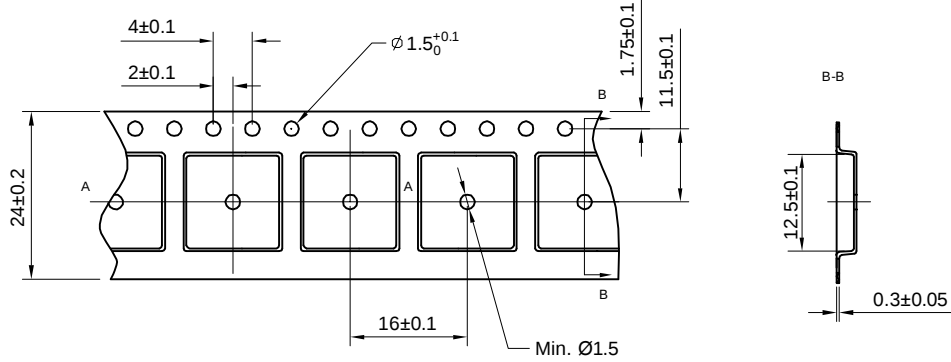


Notice: All specification must be satisfied in this condition.
SPL: allowable deviation $\pm 5\text{dB}$ of the initial value after testing

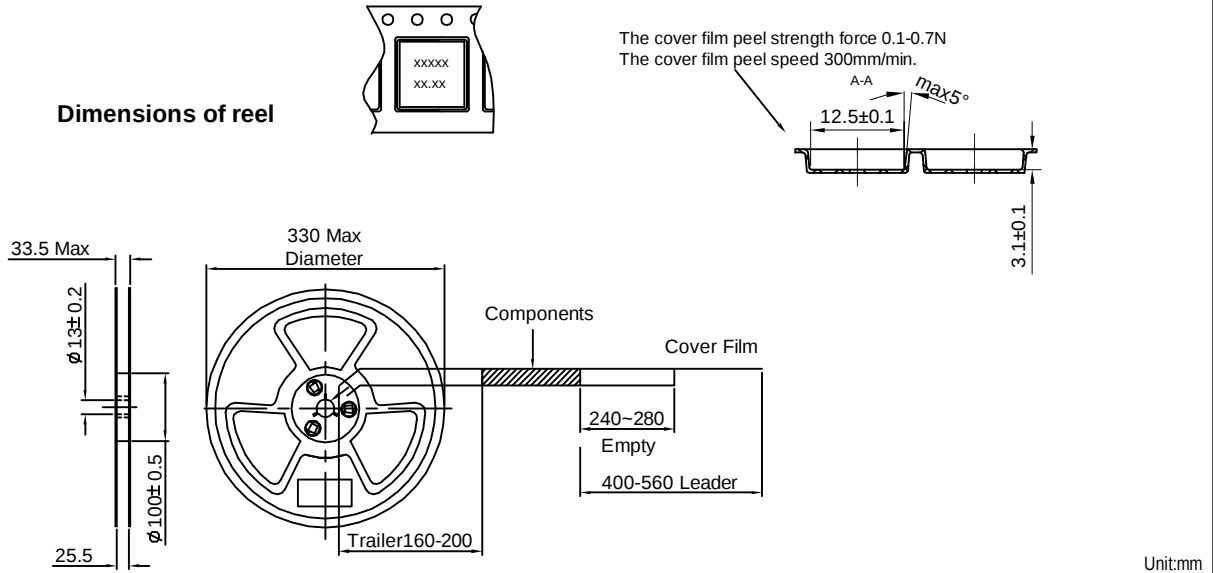
4. Tape on Reel Packing

4.1 packing drawing

Dimensions of carrier tape



Dimensions of reel



Unit:mm

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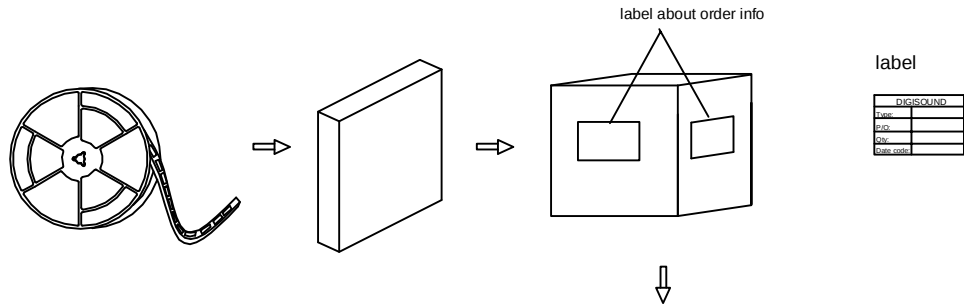
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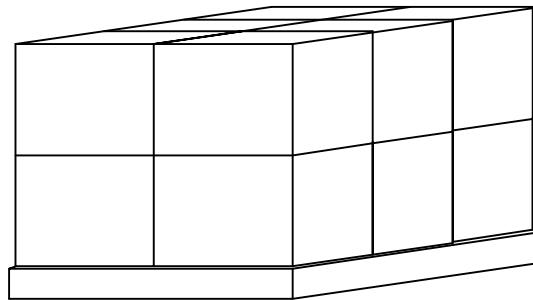
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4.2 packing quantity

- 4.21 1000pcs/reel
- 4.22 5reel/carton
- 4.23 5000 pcs/carton in total
- 4.24 carton size 38x28x37cm
- 4.25 12carton/tray
- 4.26 tray size 85x77x74cm



5. Notice

5.1 The products mustn't be washed

5.2 Storage Condition

The products should be stored in the room ,where the temperature/humidity is stable. And avoid such places where there are large temperature changes. Please store the products at the following conditions:

Temperature: -10 to + 40° C Humidity: 15 to 85% R.H.

5.3 Expire Date on Storage

Expire date (Shelf life) of the products is six months after delivered under the conditions of a sealed and an unopened package. Please use the products within six months after delivered.

If you store the products for a long time (more than six months), use carefully because the products may be degraded in the solderability and/or rusty. Please confirm solderability and characteristics for the products regularly.

5.4 Notice on Product Storage

(1) Please do not store the products in a chemical atmosphere (Acids, Alkali, Bases, Organic gas, Sulfides and so on), because the characteristics may be reduced at quality, and/or be degraded in the solderability due to the storage in a chemical atmosphere.

(2) Please use the products immediately after the package is opened, because the characteristics may be reduced at quality, and/or be degraded in the solderability due to storage under the poor condition.

(3) Please do not drop the products to avoid cracking of ceramic element.

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6. History change record

[illegible]

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