

BSP 1212-03H03-07 LF

PIEZO BUZZER

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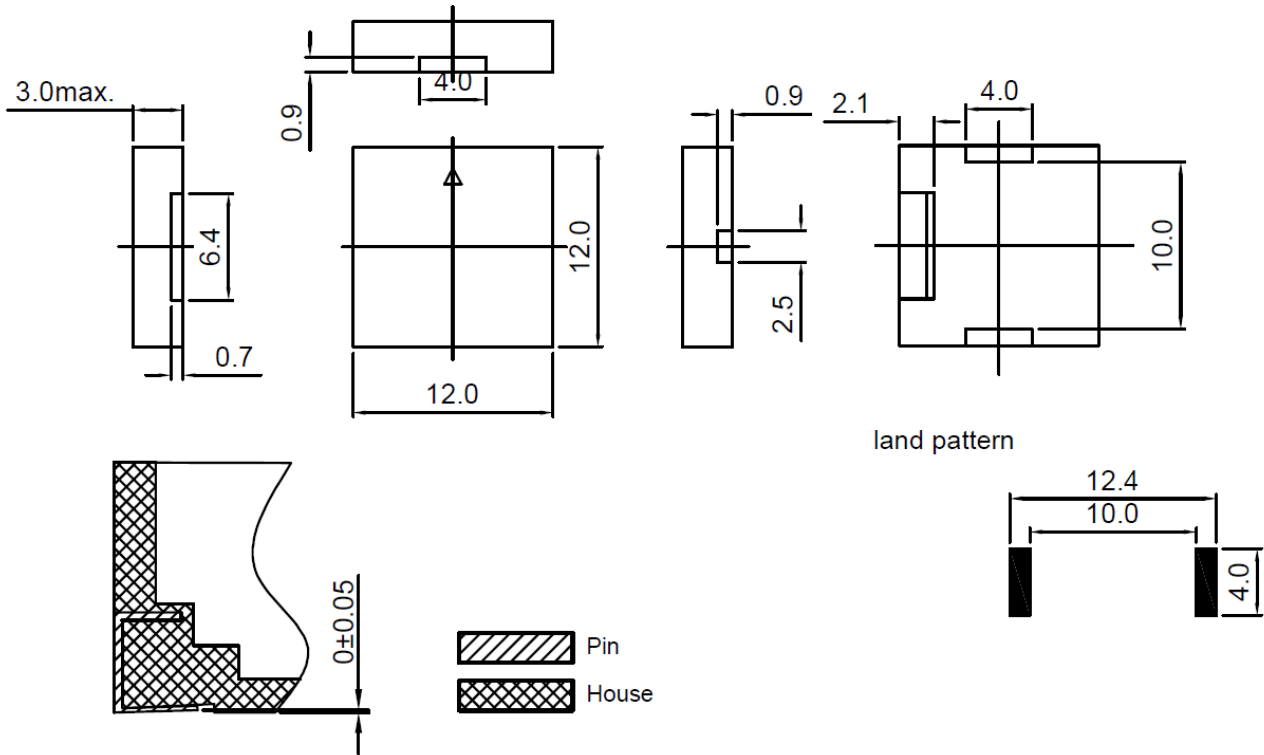


1. SPECIFICATIONS

Parameter	Unit	Conditions / Description	MIN	TYP	MAX
Rated Voltage	Vp-p	Square wave		3	
Operating Voltage	Vp-p		1		25
Rated Current	mA	Value applying at rated voltage (3Vp-p square wave,1/2duty)			1
Capacitance	nF	At 120Hz	11.2	16	20.8
SPL	dB	Value applying at rated voltage (3Vp-p square wave,1/2duty), at 4.000Hz In 10cm distance	75		
Resonance Frequency	Hz			4.000	
Plating layer of plate				TIN	
Contact				SMD	
Packaging				REEL	
Operating Temperature	°C		-40		+85
Storage Temperature	°C		-40		+85
Weight	g		0.26	0.35	0.44

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CHANGED BY	Rabea Richter	DATE	2019.09.13				
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2. DRAWING



Tolerance: ± 0.3 Unit: mm

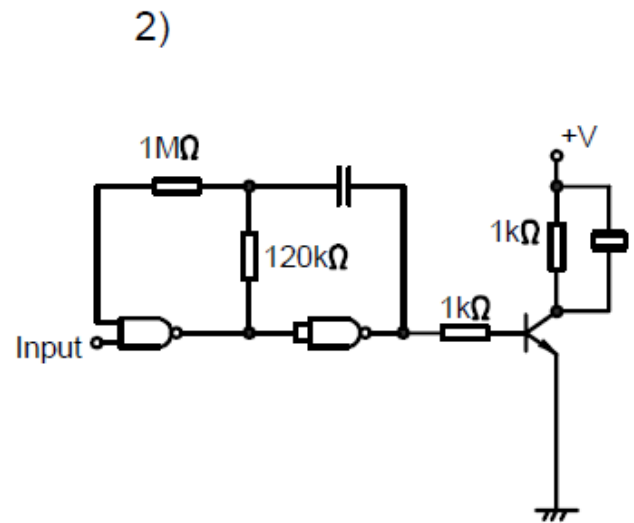
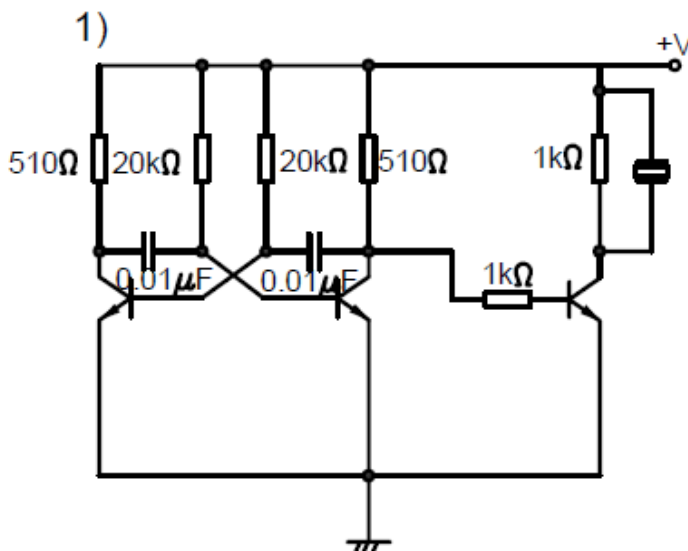
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3. TEST METHOD

3.1 RECOMMENDED CIRCUIT

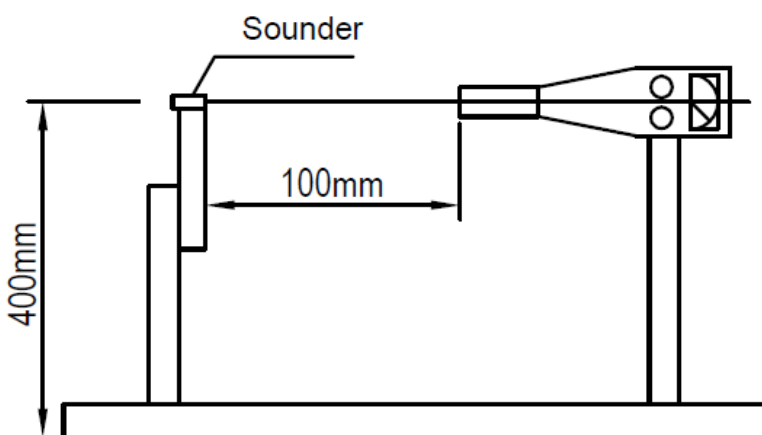
The following are examples of externally driven circuits.

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



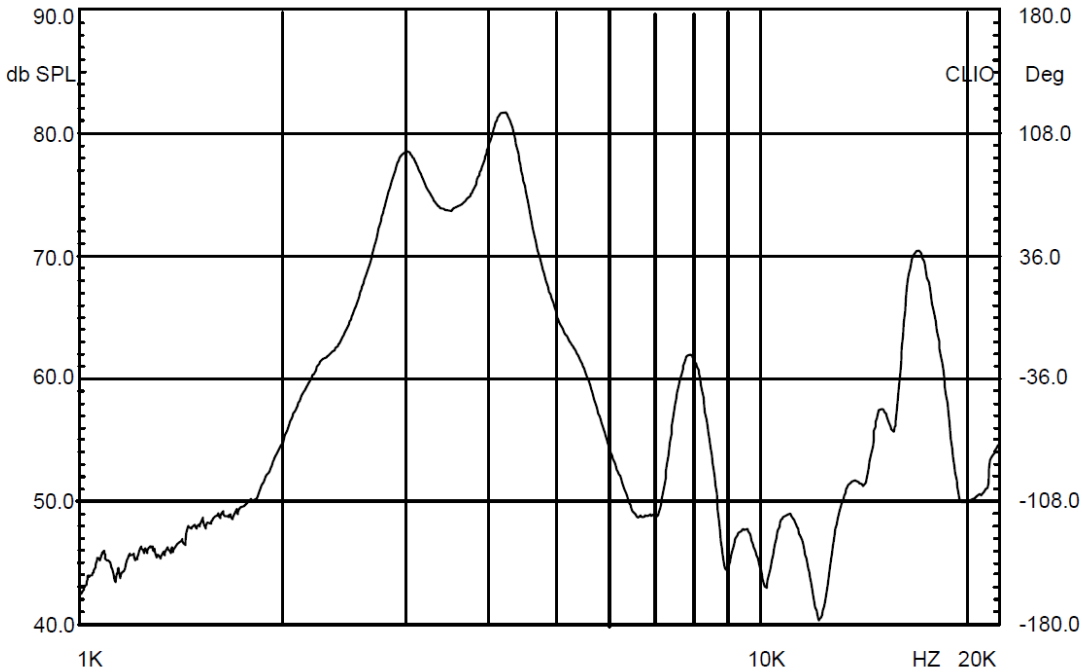
3.2 STANDARD TEST FIXTURE

No reaction in space with in 400mm in all direction



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3.3 FREQUENCY RESPONSE CURVE (Square wave 3Vp-p 10cm)



4. RELIABILITY TEST

4.1 High Temperature Test

Temperature +85°C
Duration 96 hours

All these tests above should be measured after leaving normal temperature for 2 hours.

4.2 Low Temperature Test

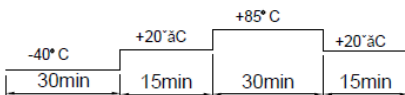
Temperature -40°C
Duration 96 hours

4.5 Vibration Test

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

4.3 Temperature Cycle Test

Cycles 5



4.6 Drop Test

Height 70 cm (to 10mm thick wooden board)
Direction 3

4.5 Humidity Test

Temperature +40°C
Relative Humidity 93% RH
Duration 96 hours

4.7 Solderability

Temperature 255 ± 5°C
Duration 3 ± 0.5 seconds

4.8 Solder Heat Resistance

Temperature 255 ± 10°C
Duration 30 seconds

Notice:

All specification must be satisfied in this condition. SPL: allowable deviation 5dB of the initial value after testing

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5. REFLOW CONDITION

Temperature profile for a lead-free reflow process

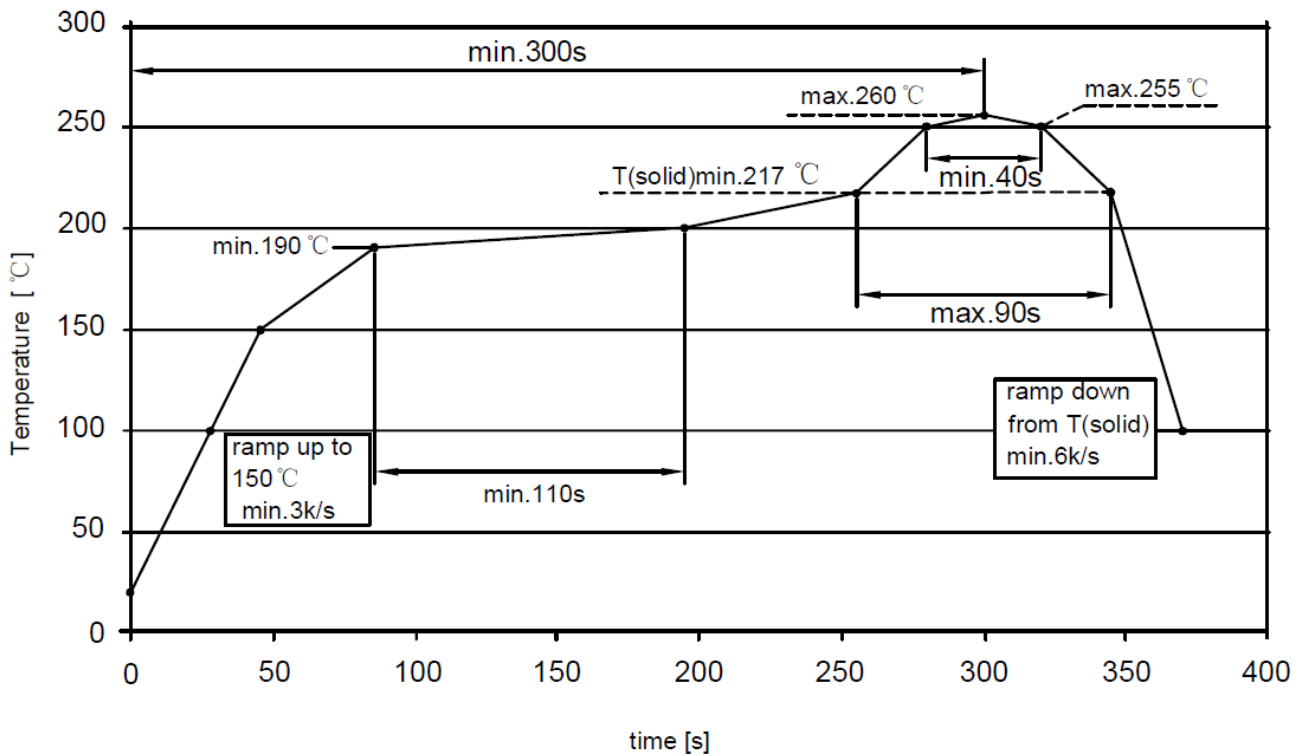
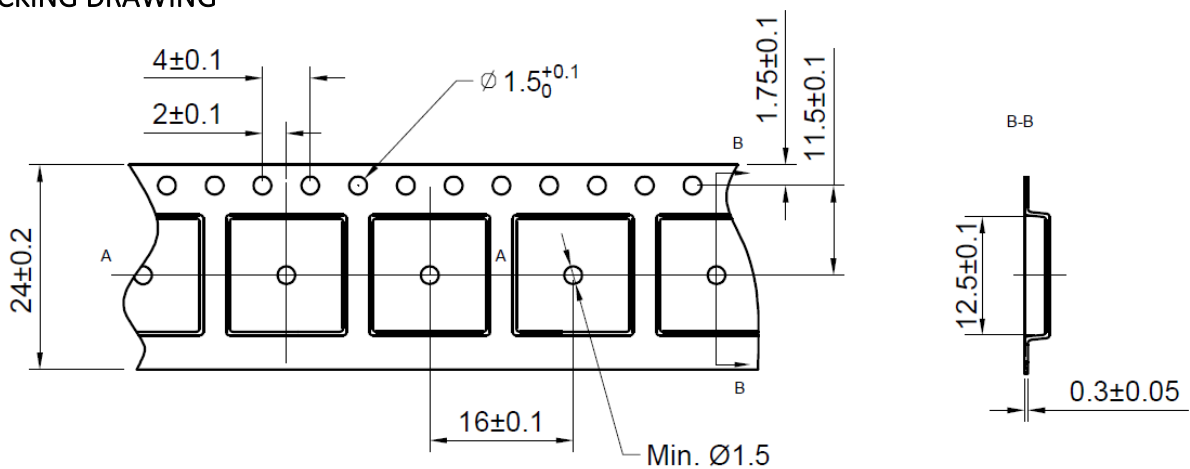


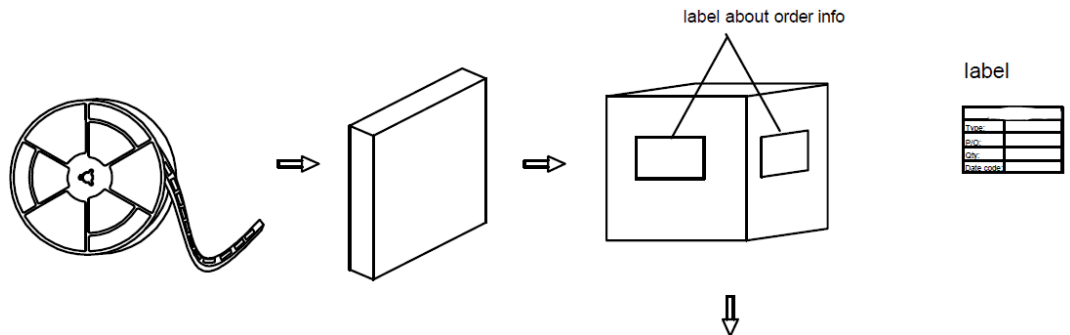
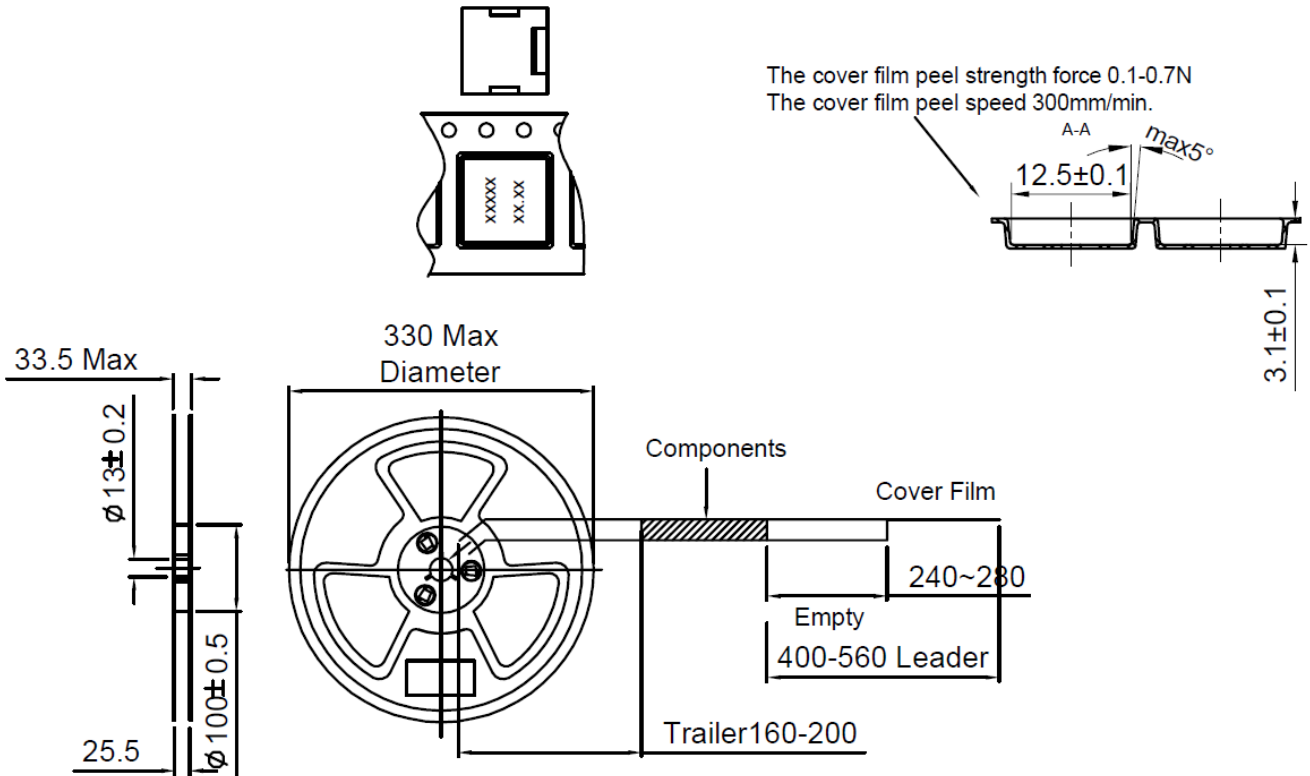
Fig. 1 Recommended soldering Temperature-Time profile (Reflow soldering)

6. PACKING

6.1 PACKING DRAWING

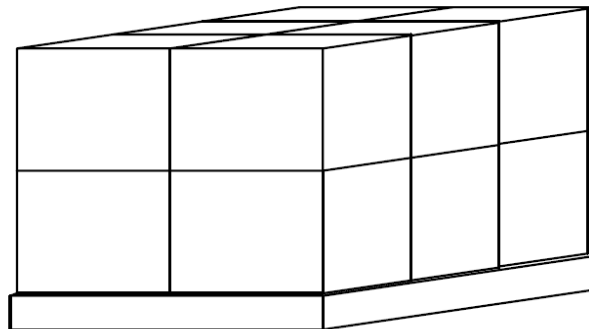


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6.2 PACKING QUANTITY

100pcs per reel
5 reels per carton
5000pcs per carton in total
Carton size: 38x28x37cm
12 cartons per tray
Tray size: 85x77x74cm



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7. NOTICE

7.1 The products mustn't be washed

7.2 Storage Condition

The products should be stored in a 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.

7.3 Expire Date on Storage

Expire date (Shelf life) of the products is six months after delivery under the conditions of a sealed and an unopened package. Please use the products within six months after delivery. If you store the products for a long time (more than six months), Use them carefully, because the products may be degraded in the solderability and/or rusty. Please confirm solderability and characteristics for the products regularly.

7.4 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 in 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 in 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.

8. HISTORY CHANGE RECORD

REV	CHANGE ITEMS		DATE
	BEFORE CHANGE	AFTER CHANGE	
1		The distance between the pin and the house is 0±0.05mm	2012.10.16
2	Old Layout	New Layout	2019.09.13

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