



APPROVAL SHEET  
FOR  
MAGNETIC BUZZER

深圳市銳創達電子有限公司

TAT ELECTRONICS CO. LTD.

CUSTOMER:

PART NUMBER: BP1109S-0541

CUSTOMER PART NO.:

CUSTOMER	APPROVED	CHECKED
SIGNECTURE (Customer)	SIGNECTURE (Company)	

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<b>Specification for Piezoelectric Ceramic Buzzer SMD Type</b>		Update/09D07	Page 2 of 6
		Des.	Chk.
<b>Model No.:</b>	BP1109S-0541	Li YanFei	Jiang Yin
		8/8/2020	8/8/2020

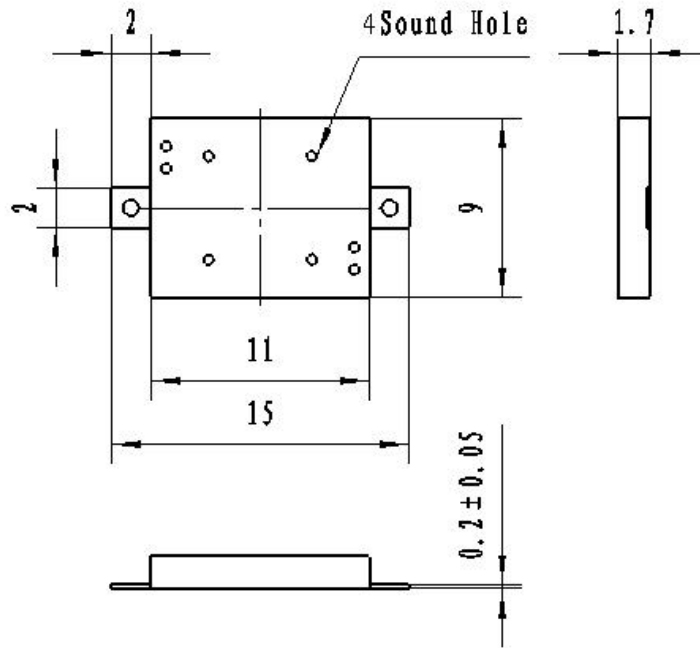
## 1. SPECIFICATION

### Piezoelectric Ceramic Buzzer SMD

1	Dimension	11.0X9.0X1.8
2	Net Weight	Approx 0.5g
3	Resonant Frequency	4100±500 Hz
4	Operating Voltage	1~20Vp-p
5	Rated Current	Max.7mA ,at 4.1KHz 50% duty Square Wave 5Vp-p
6	Sound Output	Min. 75dB,at 4.1KHz 50% duty Square Wave 5Vp-p
7	Capacitance	12000pF ± 30%,at 120Hz
8	Operating Temperature	-20°C ~ +70°C
9	Store Temperature	-30°C ~ +80°C
10	RoHS	Yes

### Dimensions

Unit: mm



\*Unit: mm; Tolerance: ±0.3mm Except Specified

\*Housing Material: Black LCP



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## 2. Reliability Test

After any following tests the part shall meet specifications without any degradation in appearance and performance except SPL. SPL shall not deviate more than -10 dB from the initial value

### 2.1 Ordinary Temperature Life Test

The part shall be subjected to 96 hours at  $25 \pm 10^\circ\text{C}$ . Input rated voltage Resonant frequency, 1/2 duty Square wave.

### 2.2 High Temperature Test

The part shall be capable of with standing a storage temperature of  $+85^\circ\text{C}$  for 96 hours.

### 2.3 Low Temperature Test

The part shall be capable of with standing a storage temperature of  $-40^\circ\text{C}$  for 96 hours.

### 2.4 Humidity Test

Temperature:  $+40^\circ\text{C} \pm 3^\circ\text{C}$  Relative Humidity: 90%~95% Duration: 48 hours and expose to room temperature for 6 hours

### 2.5 Temperature Shock Test

Temperature:  $70^\circ\text{C}$  /1hour  $\rightarrow$   $25^\circ\text{C}$  /3hours  $\rightarrow$   $-30^\circ\text{C}$  /1hour  $\rightarrow$   $25^\circ\text{C}$  /3hours (1cycle)  
Total cycle: 10 cycles

### 2.6 Drop Test

Standard Packaging From 1.2m (Drop on hard wood or board of 5cm thick, three sides, six plain.)

### 2.7 Vibration Test

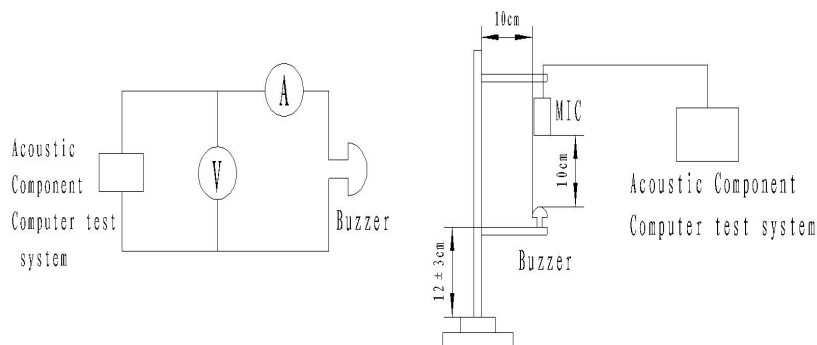
Vibration: 1000cycles /min. Amplitude: 1.5mm, Duration: 1 hour in each 3 axes

#### Note:

As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign material enter it.

## 3. Electrical And Acoustical Measuring Condition

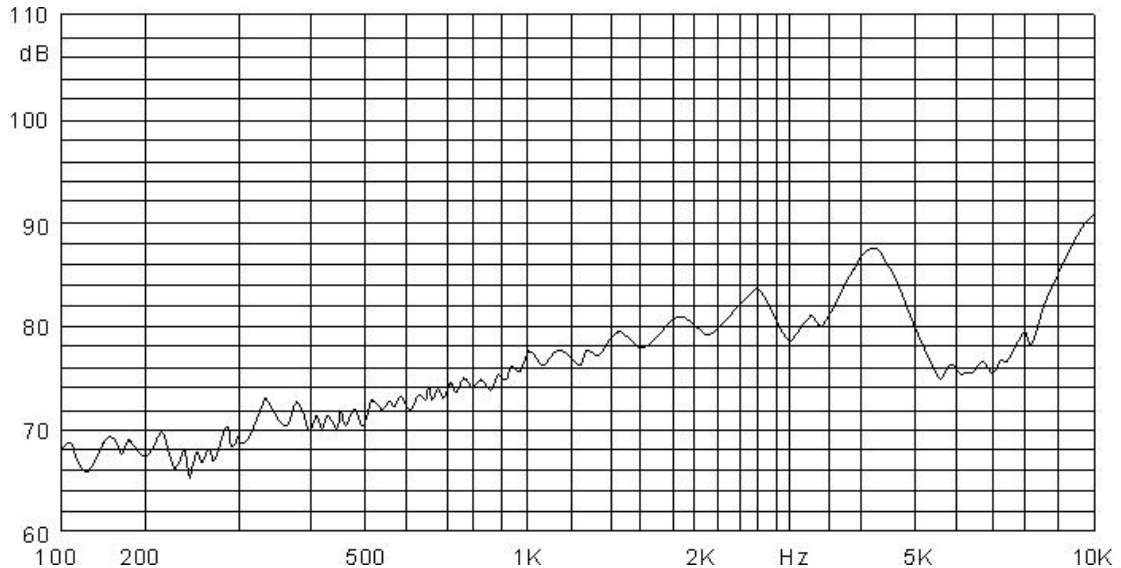
### 3.1 Recommended Setting





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#### 4. Frequency Response

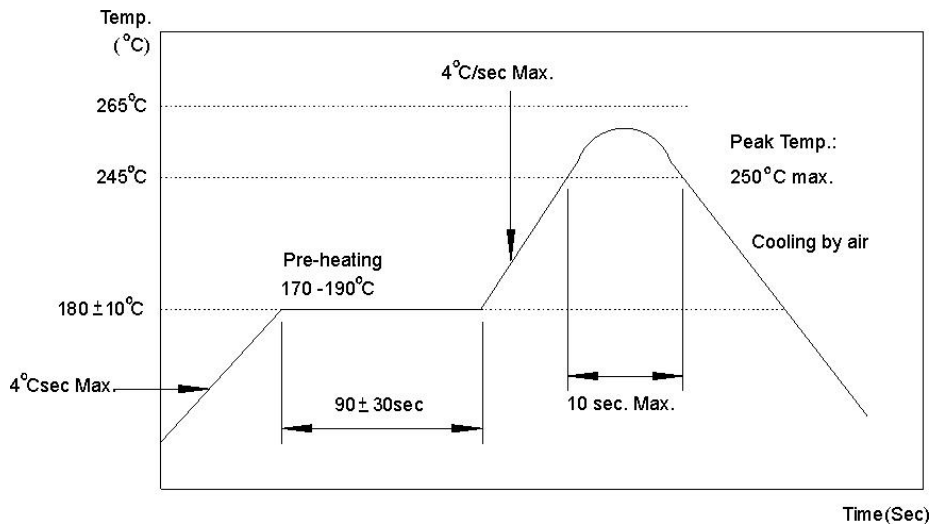


5Vp-p 50% duty Square wave, 10cm

#### 5. Surface mounting condition

##### 5.1 Reflow soldering

Recommendable reflow soldering condition is as follows.



**Note:** (1) In automated mounting of the SMD sound transducers on PCB, any bending, expanding and pulling forces or shocks against the SMD sound transducers shall be kept minimum to prevent them from electrical failures and mechanical damages of the devices.

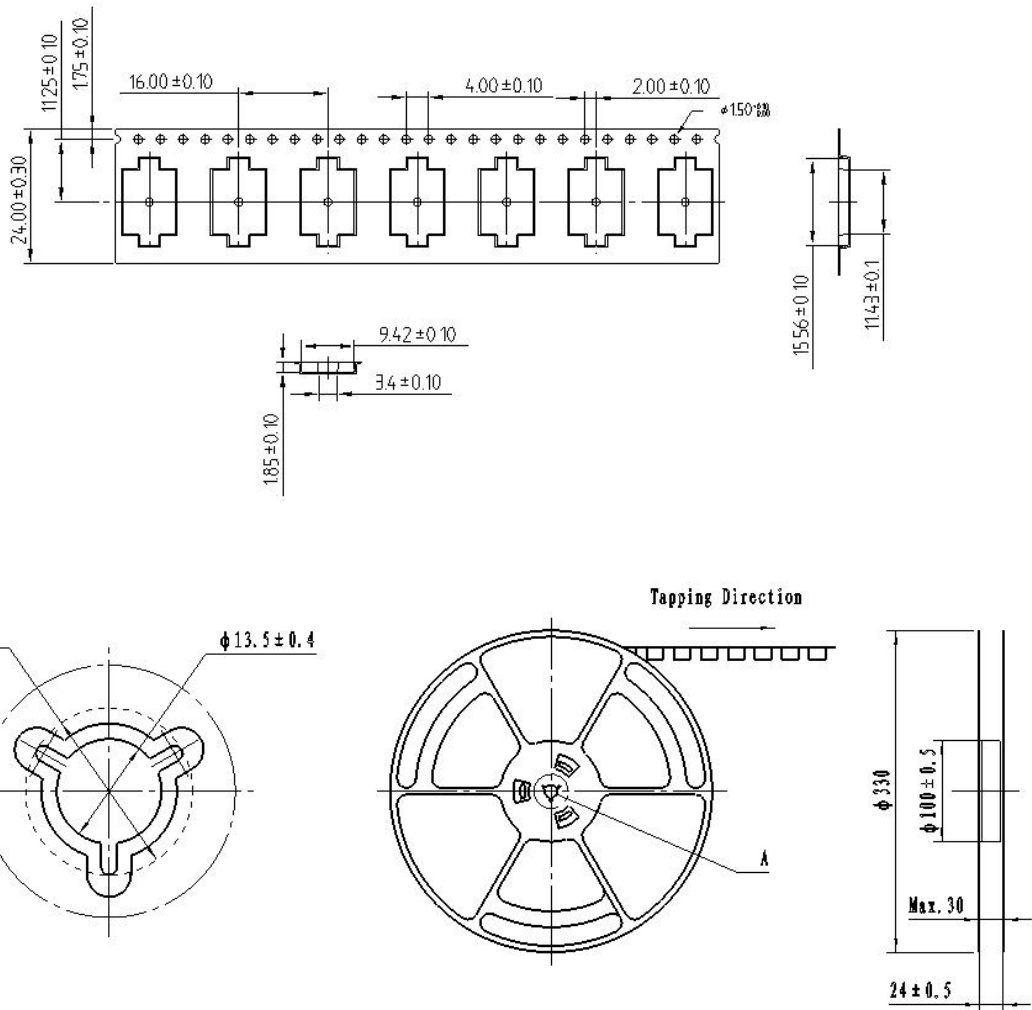
(2) In the reflow soldering, too high soldering temperatures and too large temperature Gradient such as rapid heating or cooling may cause electrical failures and mechanical damages of the devices.



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## 6. Packing

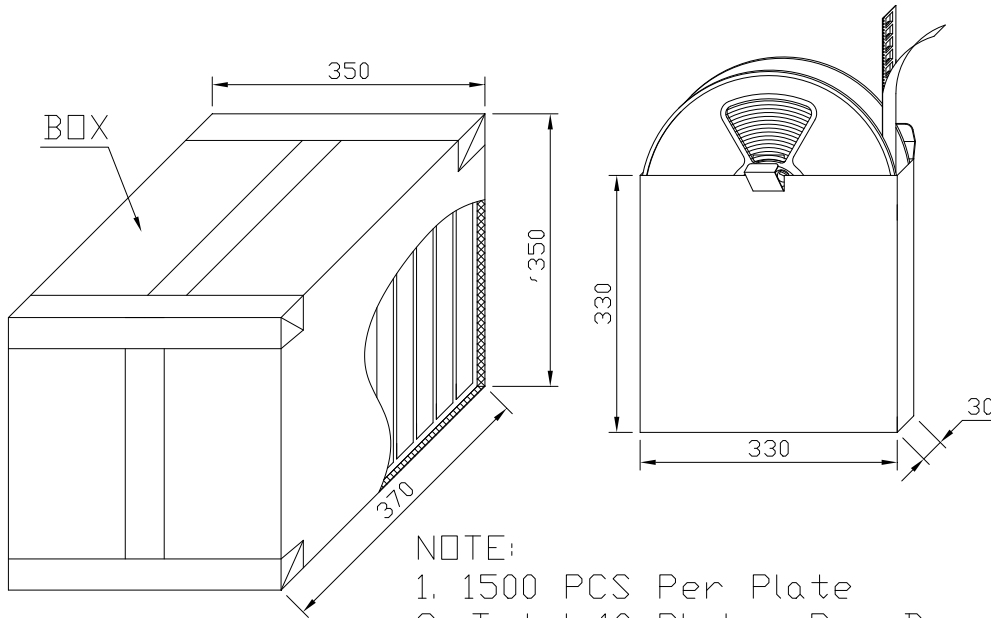
### 6.1 Dimension Of Carrier Tape





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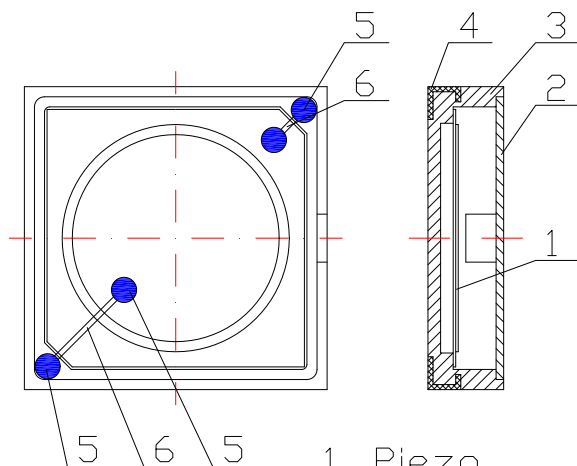
### 6.2 Dimension Of Plastic Reel



NOTE:

1. 1500 PCS Per Plate
2. Total 10 Plates Per Box.
3. Total 15000 PCS Per Box.
4. The Size of Box: 35\*35\*37cm

### 7. Inside Structure



1. Piezo
2. Cover
3. House
4. Pin
5. Silver Glue
6. Copper Wire