

**APPROVAL SHEET  
FOR  
MAGNETIC BUZZER**

*BOSAN HITECH CO., LTD*

PART NUMBER: BSMT9040-3027

CUSTOMER	APPROVED	CHECKED

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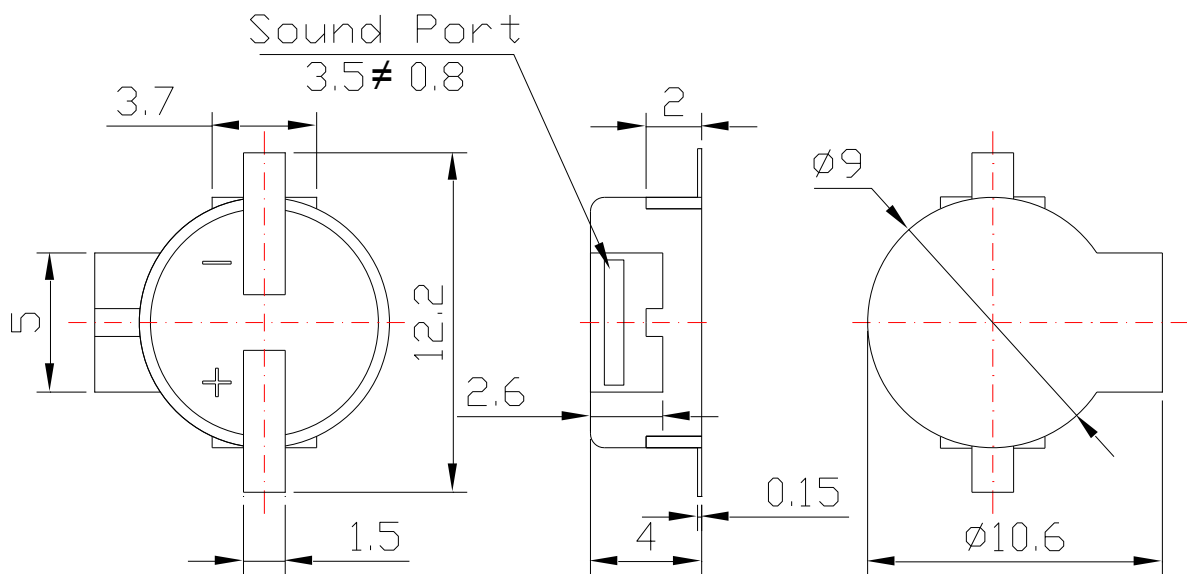
# 1. SPECIFICATION

## Magnetic Buzzer SMD

1	Dimension	Φ9.0×H4.0
2	Net Weight	Approx 1.3g
3	Rated Voltage	3.0 Vo-p
4	Operating Voltage	2.0~4.0 Vo-p
5	Rated Current	Max.70mA ,at 2.700KHz 50% duty Square Wave 3.0Vo-p
6	Sound Output	Min. 87dB,at 2.700KHz 50% duty Square Wave 3.0Vo-p
7	Coil Resistance	16±3Ω
8	Resonant Frequency	2700Hz
9	Operating Temperature	-20℃~+70℃
10	Store Temperature	-30℃~+80℃

### Dimensions

Unit: mm



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

\*Housing Material: Black LCP

## 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:

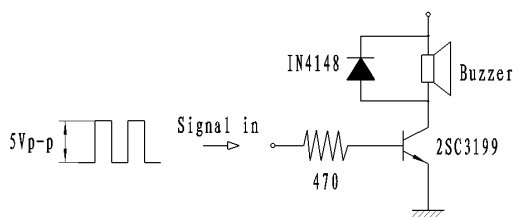
As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign material enter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

## 3. Electrical And Acoustical Measuring Condition

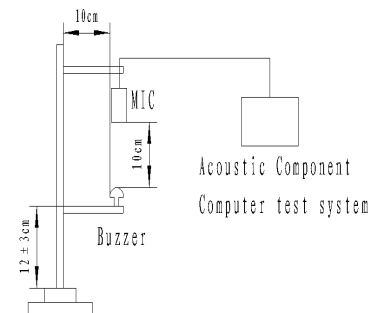
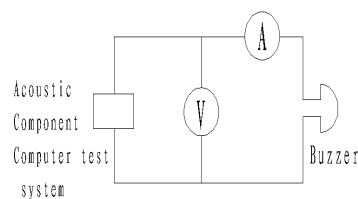
### 3.1 Recommended Driving Circuit

Resonant frequency, 1/2 duty cycle.

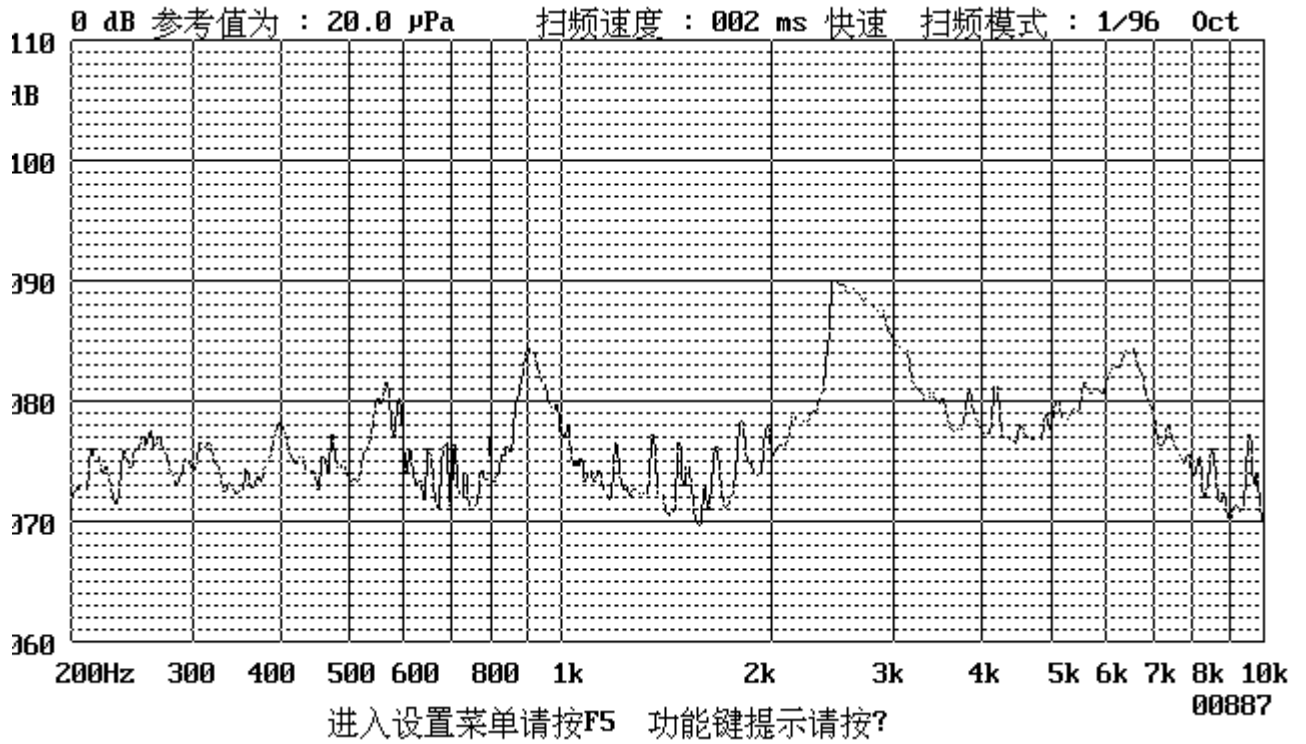
Square wave. Signal amplitude should be large enough to saturate the transistor.



### 3.2 Recommended Setting



## 4. Frequency Response



3.0V<sub>o-p</sub> 50% duty Square wave, 10cm

Fig3