



APPROVAL SHEET
FOR
MAGNETIC BUZZER

深圳市銳創達電子有限公司

TAT ELECTRONICS CO. LTD.

CUSTOMER:

PART NUMBER: BM9045S-0527-25

CUSTOMER PART NO.:

CUSTOMER	APPROVED	CHECKED
SIGNECTURE (Customer)	SIGNECTURE (Company)	

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Specification for magnetic buzzer SMD Type		Update/2008/10/10	Page 2 of 5
		Des.	Chk.
Model No.:	BM9045S-0527-25	Li YanFei	Jiang Yin
		2008/10/01	2008/10/10

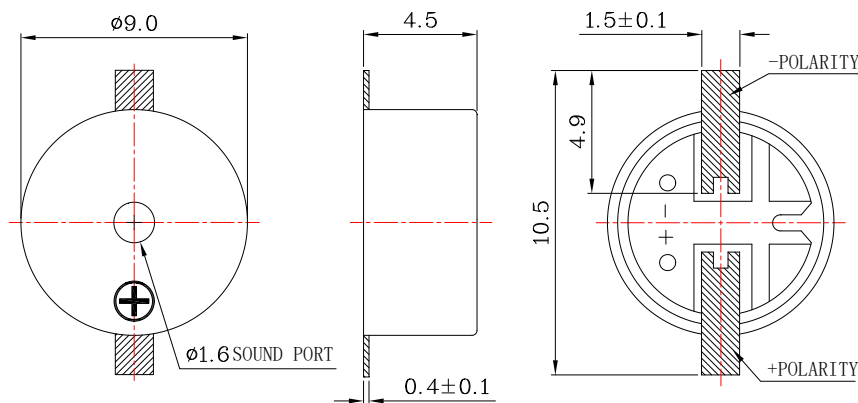
1. SPECIFICATION

Piezoelectric Ceramic Element

1	Dimension	Φ9.0*H4.5
2	Net Weight	Approx 0.5g
3	Rated Voltage	5Vo-p
4	Operating Voltage	4~7 Vo-p
5	Rated Current	Max.80mA ,at Rated Voltage
6	Sound Output	Min. 85dB,at 10cm at Rated Voltage
7	Coil Resistance	25±5 Ω
8	Resonant Frequency	2700Hz
9	Operating Temperature	-20℃ ~ +60℃
10	Store Temperature	-30℃ ~ +80℃

Dimensions

Unit: mm



*Unit: mm; Tolerance: ±0.5mm

*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°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°C /1hour \rightarrow 25°C /3hours \rightarrow -30°C /1hour \rightarrow 25°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:

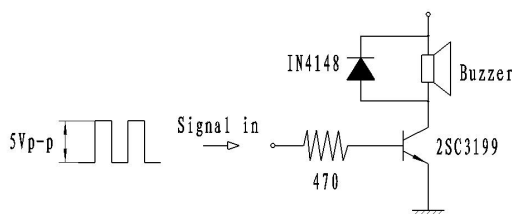
As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign material enter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

3. Electrical And Acoustical Measuring Condition

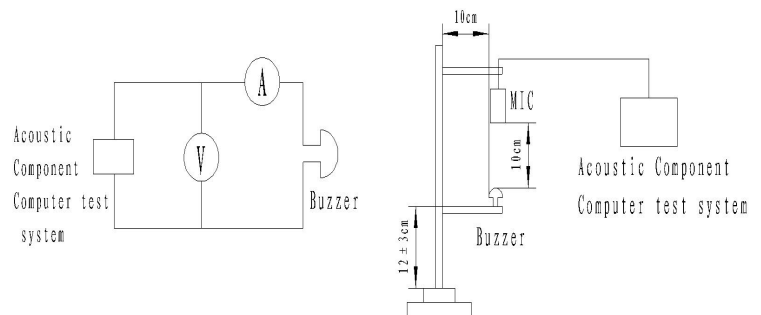
3.1 Recommended Driving Circuit

Resonant frequency, 1/2 duty cycle.

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



3.2 Recommended Setting





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4. Frequency Response

型号: _____

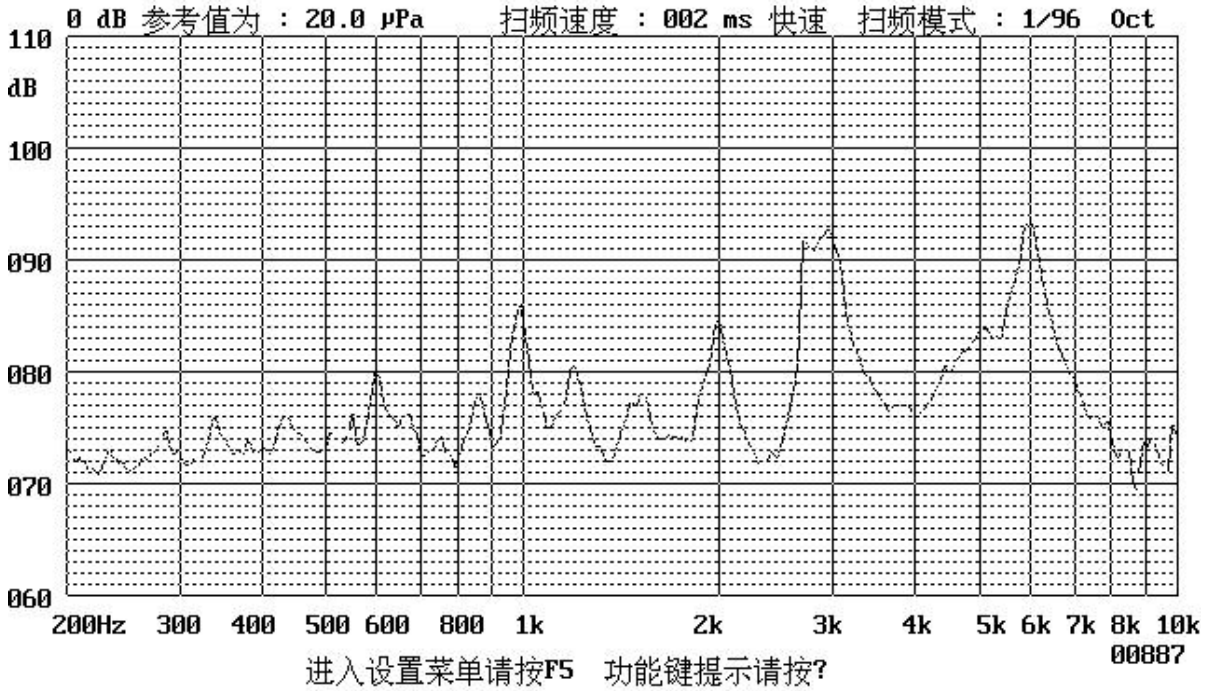
Fc= 2731 Hz 090.89 dB

左传声器

方波

电压: 3000 mV

Fo= 5928 Hz 093.15 dB



3Vo-p 50% duty Square wave, 10cm

Fig3

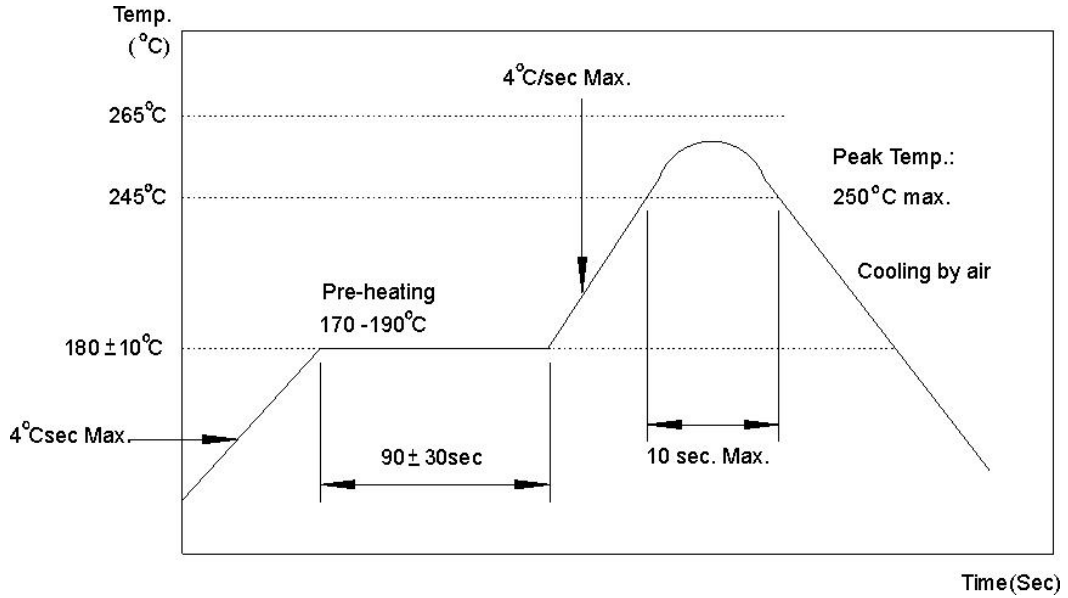


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5. Surface mounting condition

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.