



APPROVAL SHEET  
FOR  
MAGNETIC BUZZER

深圳市銳創達電子有限公司

*TAT ELECTRONICS CO. LTD.*

CUSTOMER:

PART NUMBER: BM1290-0520-4202

CUSTOMER PART NO.:

CUSTOMER	APPROVED	CHECKED
SIGNECTURE (Customer)		SIGNECTURE (Company)

Add: 4F/C, JING HE YUAN INDUSTRIAL PARK, BAN XUE GANG ROAD,  
BANTIAN VILLAGE, SHENZHEN CITY, GUANGDONG CHINA  
深圳市龙岗区布吉坂田坂雪岗大道景和源科技园 C 栋 4 楼

Tel: +86-755-8950 9282, 8950 9880, 2109 3136;

Fax: +86-755-6135 1661

Email: [tatspeaker@tatelec.com](mailto:tatspeaker@tatelec.com); [sales@tatelec.com](mailto:sales@tatelec.com);

[Http:// www.tatelec.com](http://www.tatelec.com)



Specification for Electro-Magnetic Buzzer (Pin Type)		Update/09B04	Page 2 of 4
		Des.	Chk.
Model No.:	BM1290-0520-4202	Li YanFei	Jiang Yin
		1/27/2010	1/27/2010

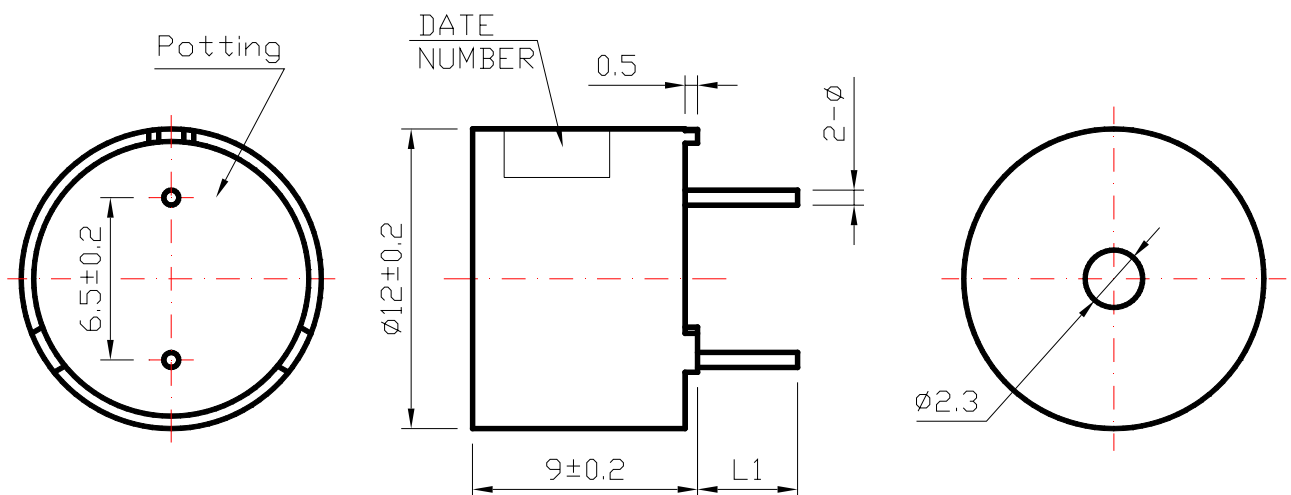
## 1. SPECIFICATION

### Electro-Magnetic Buzzer

1	Dimension	$\Phi 12.0 \times H9.0$
2	Net Weight	Approx 1.5g
3	Rated Voltage	5 Vo-p
4	Operating Voltage	4~7 Vo-p
5	Rated Current	Max.70mA ,at 2.048KHz 50% duty Square Wave 5Vo-p
6	Sound Output	Min. 85dB,at 2.048KHz 50% duty Square Wave 5Vo-p
7	Coil Resistance	$42 \pm 4\Omega$
8	Resonant Frequency	2048Hz
9	Operating Temperature	$-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$
10	Store Temperature	$-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$
11	Pin	$L1=4.0 \pm 0.5, \Phi=0.6 \pm 0.1\text{mm}$

### Dimensions

Unit: mm



\*Unit: mm; Tolerance:  $\pm 0.5\text{mm}$  Except Specified

\*Housing Material: Black Noryl



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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

### 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.

### High Temperature Test

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

### Low Temperature Test

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

### 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

### 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

### Drop Test

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

### Vibration Test

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

### Note:

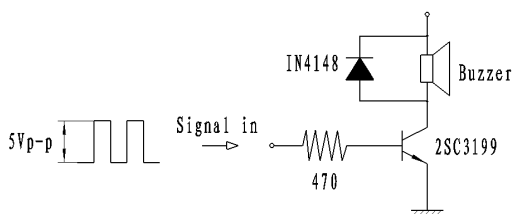
As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign material enter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

## 3. Electrical And Acoustical Measuring Condition

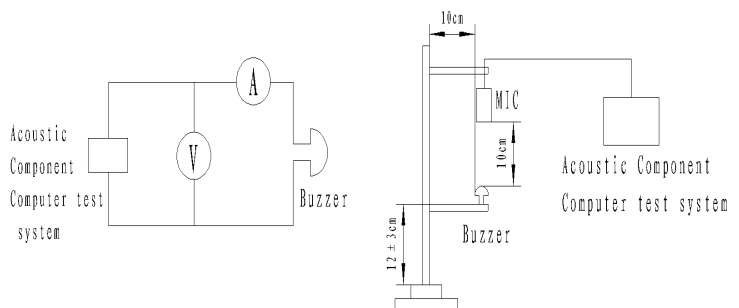
### Recommended Driving Circuit

Resonant frequency, 1/2 duty cycle.

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



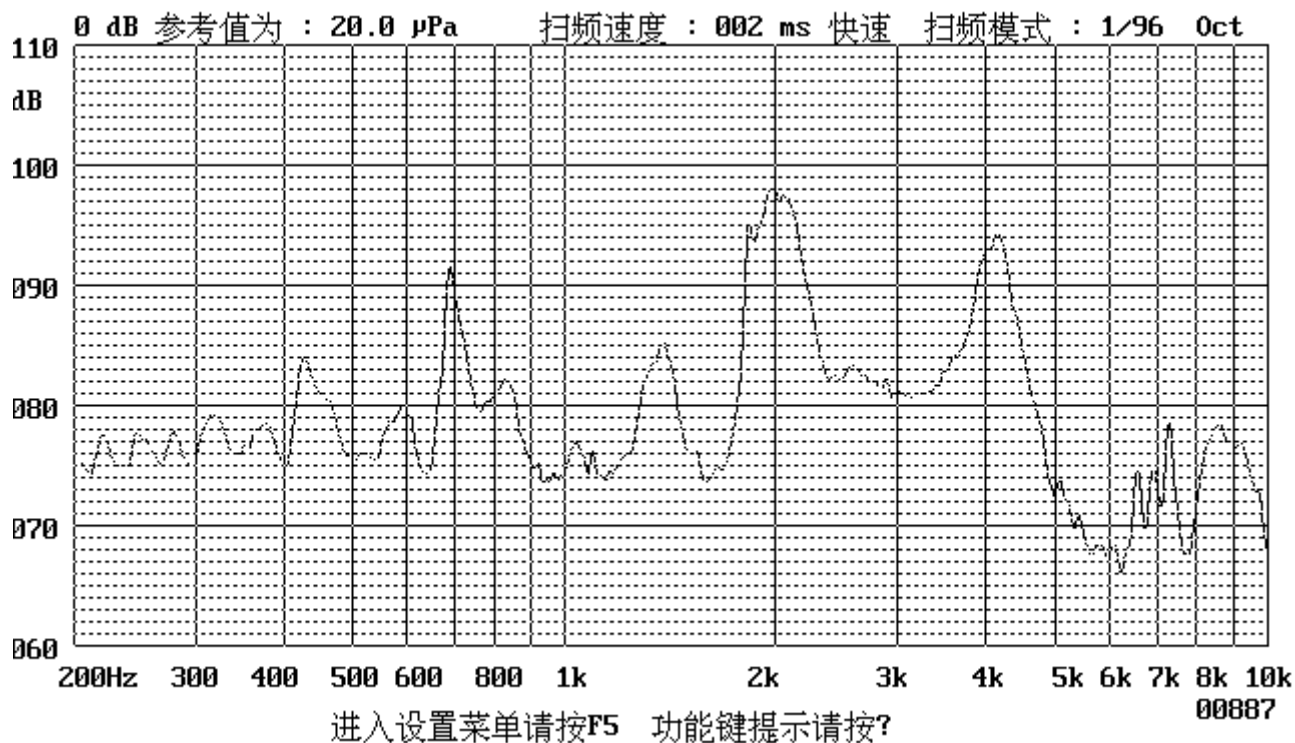
### Recommended Setting





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## 4. Frequency Response



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