



**GAIA TECH**

## Data Sheet

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Customer:

Part No:

Sample No:

Description:

Item No:

GTG-5020A

BUZZER

Customer			
Check	Inspection	Approval	Date

### General specification

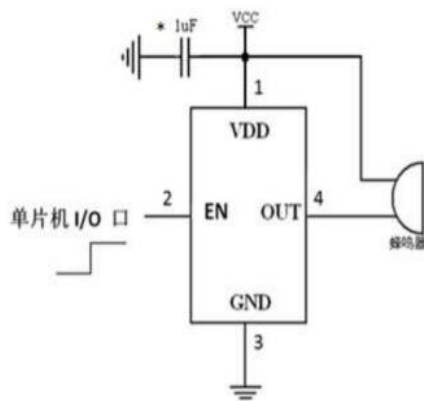
Item		Spec	Condition
1	Rated voltage	5Vo-p	Standard State,Standard Drive Circuit . Rated voltage,Distance at 0.1m
2	Operation voltage	1-25Vo-p	
3	Sound Pressure Level=SPL	Min 85dB	
4	Current	Max3mA	
	Capacitance	12000±30% pF	
5	Oscillation frequency	4000±500Hz	SPL ≥75dB
6	Operating Temperature	-20~+70℃	
7	Storage temperature	-30~+80℃	
8	Externals size (mm)	11X9X1.7	Refer to the attached drawing
9	Mass	0.3g	
10	Housing Material	LCP	

### Electrical And Acoustical Measuring Condition

#### Recommended Driving Circuit

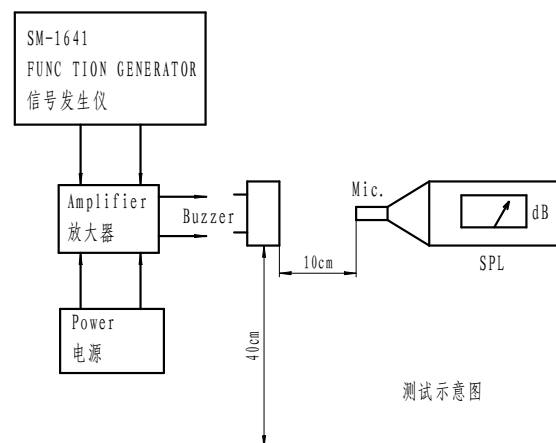
Resonant frequency, 1/2 duty cycle. Square wave.

Signal amplitude should be large enough to saturate the transistor.

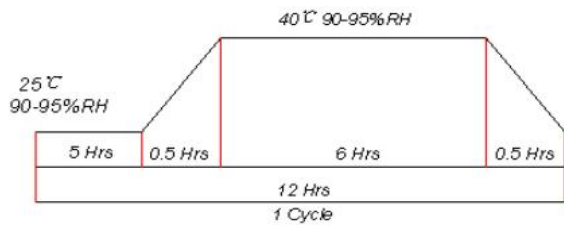
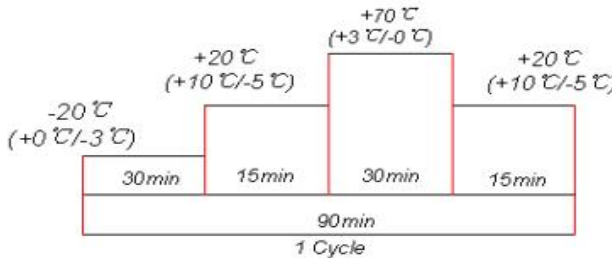
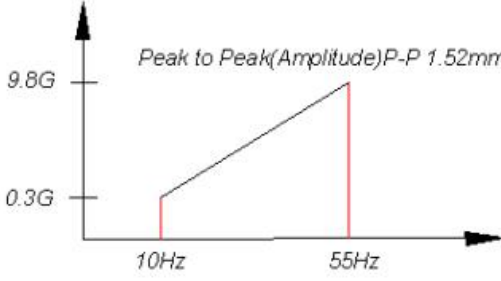
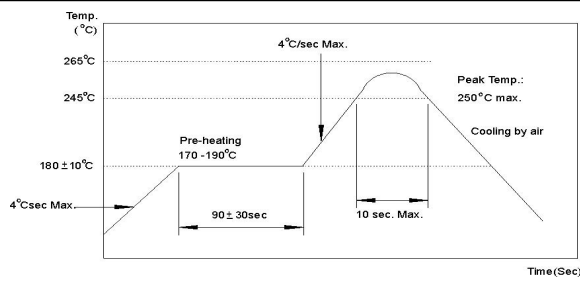


注：\*建议在芯片电源输入端增加 1uF 电源滤波电容。

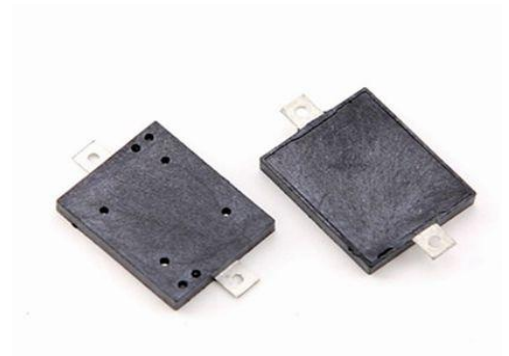
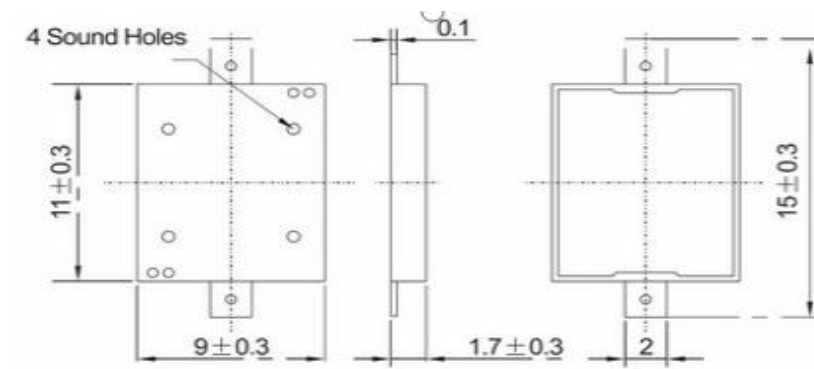
#### Recommended Setting



### Reliability Test

	ITEM	TEST
1	High Temperature Test	After being placed in a chamber with $+80\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours
2	Low Temperature Test	After being placed in a chamber with $-20\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours
3	Humidity Test	 <p>The diagram shows a humidity test profile over 12 hours for 1 cycle. It starts at 25°C and 90-95% RH for 5 hours, then ramps up to 40°C and 90-95% RH in 0.5 hours, holds at 40°C and 90-95% RH for 6 hours, and finally ramps down to 25°C and 90-95% RH in 0.5 hours.</p>
4	Temperature Cycle Test	 <p>The diagram shows a temperature cycle test profile over 90 minutes for 1 cycle. The cycle consists of four segments: 30 minutes at -20°C (+0°C/-3°C), 15 minutes at +20°C (+10°C/-5°C), 30 minutes at +70°C (+3°C/-0°C), and 15 minutes at +20°C (+10°C/-5°C). Ramps between segments are at 4°C/sec.</p>
5	Vibration Test	 <p>The diagram shows a vibration test profile. The acceleration starts at 0.3G at 10Hz and ramps up to 9.8G at 55Hz. The peak-to-peak amplitude is 1.52mm. The ramp rate is 4°C/sec Max.</p>
6	Drop Test	Drop on a hard wood board of 40mm thick, any directions, three times, at the height of 70cm
7	Terminal Strength Pulling	The force 5 seconds of 1.0kg is applied to each terminal.
8	Solder ability Test	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $255\pm 5^{\circ}\text{C}$ for $3\pm 0.5$ seconds.
9	Soldering Test	 <p>The diagram shows a soldering test profile. The temperature starts at 180±10°C, ramps up at 4°C/sec Max. to a pre-heating stage at 170-190°C for 90±30 seconds. It then ramps up at 4°C/sec Max. to a peak temperature of 250°C max. for 10 seconds max. before cooling by air.</p>

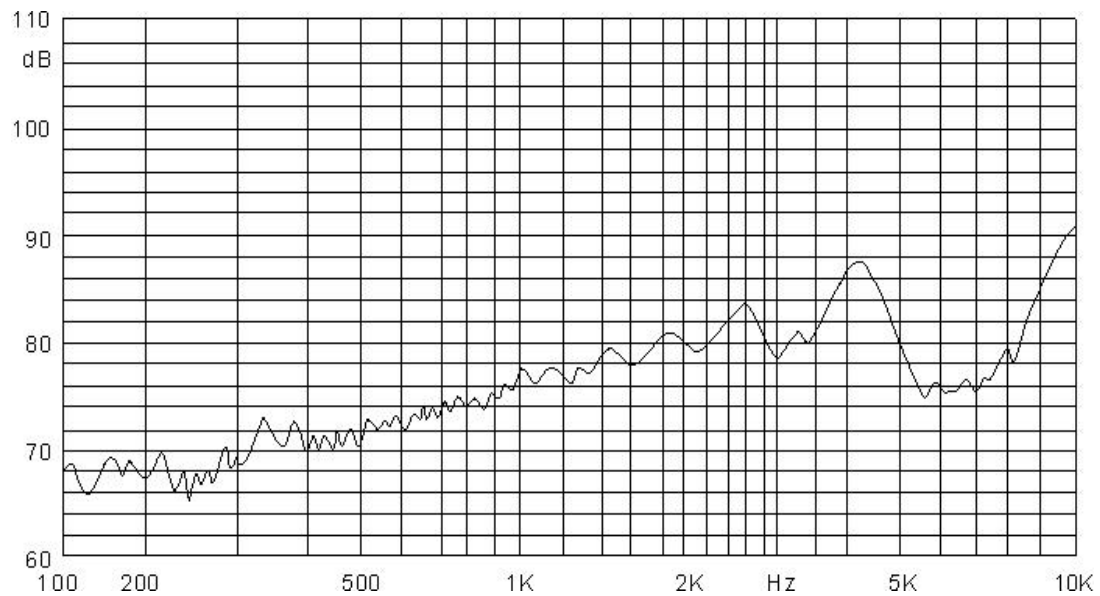
## Dimension



\*Unit: mm; Tolerance:  $\pm 0.3\text{mm}$  Except Specified

\*Housing Material: Black LCP

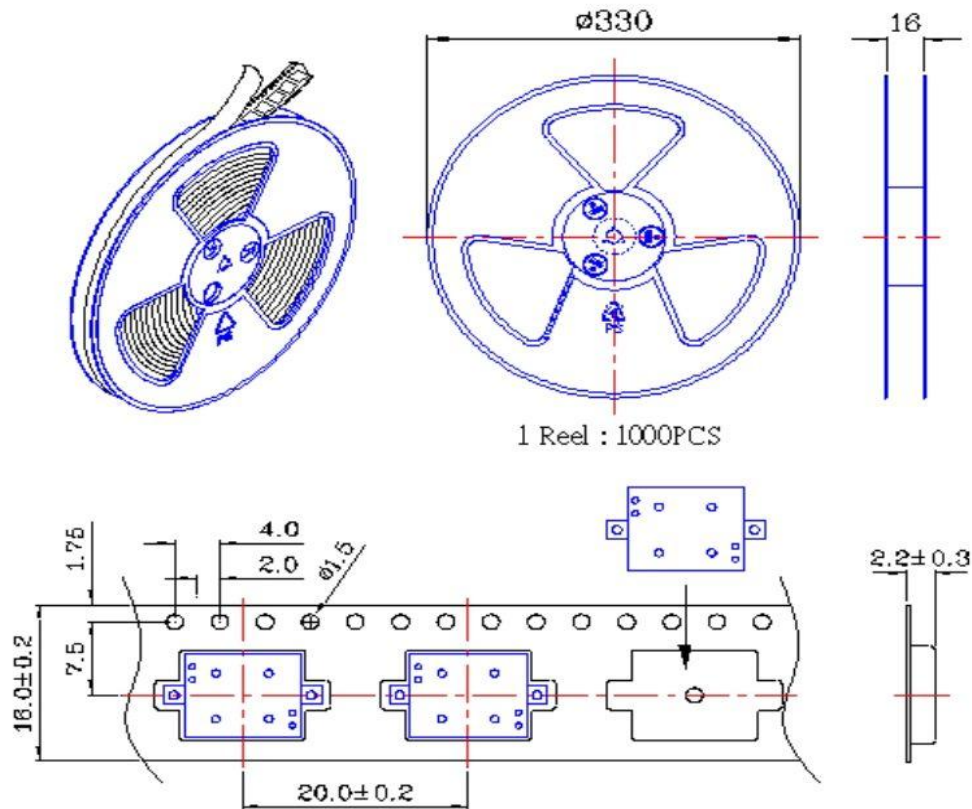
## 5.2



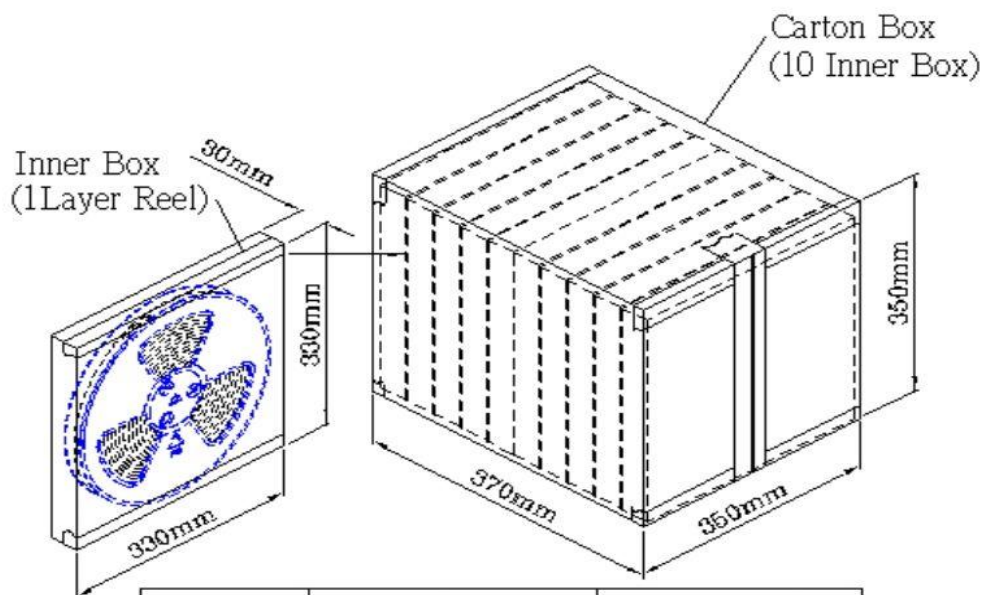
## Frequency Response

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

## Packing



1 Reel : 1000PCS



Inner Box	$330\text{mm} \times 330\text{mm} \times 30\text{mm}$	1x1000PCS=1000PCS
Carton Box	$350\text{mm} \times 350\text{mm} \times 370\text{mm}$	10x1000PCS=10,000PCS