

# 規格承認書

PECIFICATION FOR APPROVAL

客戶

CUSTOMER : 立創

項目

ITEM : 贴片式压电无源蜂鸣器(外部驱动)

型號

TYPE : GSC9018RA-5V4000

描述

DESCRIPTION : L9.0xW9.0xH1.8MM 4000Hz 5V ≥70DB 正发音 LCP 材质

客戶料號

CUSTOMER NO. :

規格書號

SPECIFICATION NO. :

版本

EDITION NO. : V1.1

日期

DATE : 2018-7-18

## 客戶承認

### CUSTOMER CONFIRM AND SIGN

檢查 TESTED BY	審核 CHECKED BY	承認 APPROVED BY

## 東莞市贏海電子有限公司

### DONGUAN INGHAI ELECTRONICS CO.,LTD

製作 ISSUED BY	審查 CHECKED BY	確認 APPROVED BY
周明	刘承成	

地址：廣東省東莞市虎門鎮懷德社區雅瑤工業區

電話 / TEL : 0769-83060958 傳真 / FAX : 0769-81608993

網址：[HTTP://WWW.INGHAI.COM](http://www.inghai.com)

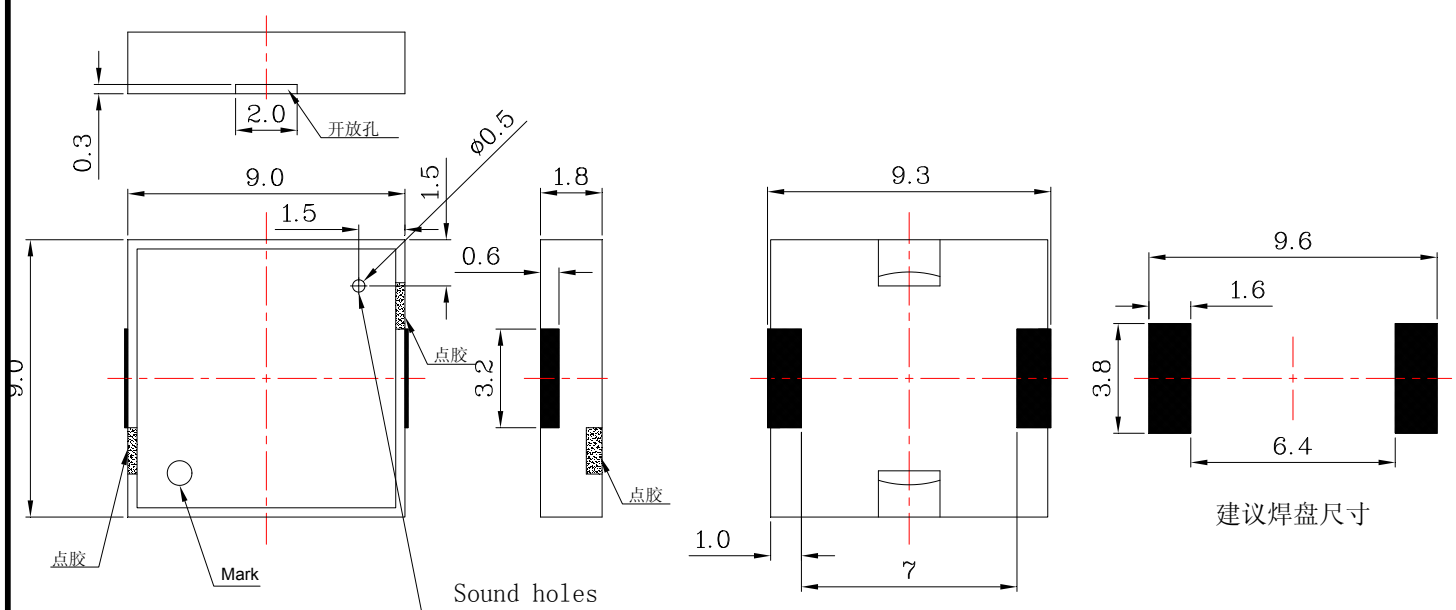
## A. SCOPE

This specification applies Piezo buzzer, **GSC9018RA-5V4000**

## B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	4000	Square Wave
2	Operating Voltage	Vp-p	1~25	
3	Rated Voltage	Vp-p	5	
4	Current Consumption	mA	MAX. 3	at Rated Voltage
5	Sound Pressure Level	dB	MIN.70	at 10cm at Rated Voltage
6	Electrostatic Capacity	pF	12000±30%	at 100Hz 1V
7	Operating Temperature	°C	-20~ +70	
8	Storage Temperature	°C	-30 ~ +80	
9	Dimension	mm	9.0 x 9.0 x H1.8	See appearance drawing
10	Weight (MAX)	gram	0.3	
11	Housing Material		PPA( Black )	
12	Leading Pin		Tin Plated Brass(Sn)	See appearance drawing
13	Environmental Protection Regulation		RoHS	

## C. APPEARANCE DRAWING



**Tol : ± 0.5    Unit: mm**

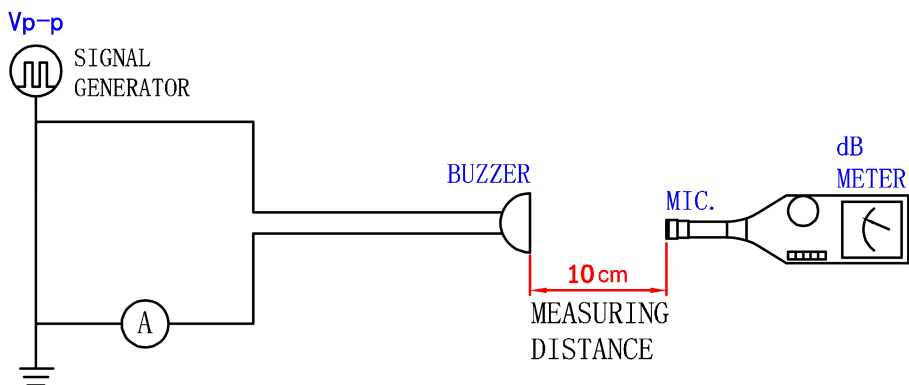
## D. TESTING METHOD

### Standard Measurement conditions

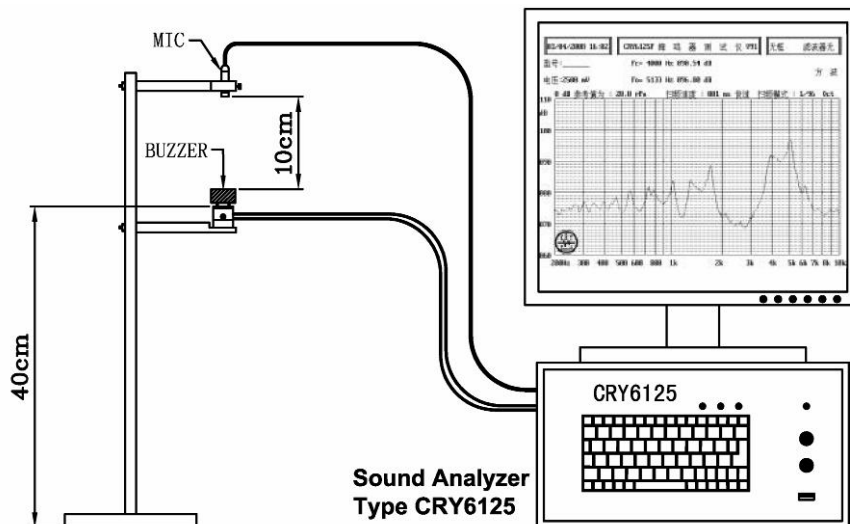
Temperature:  $25 \pm 2^{\circ}\text{C}$  Humidity: 45-65%

### Acoustic Characteristics:

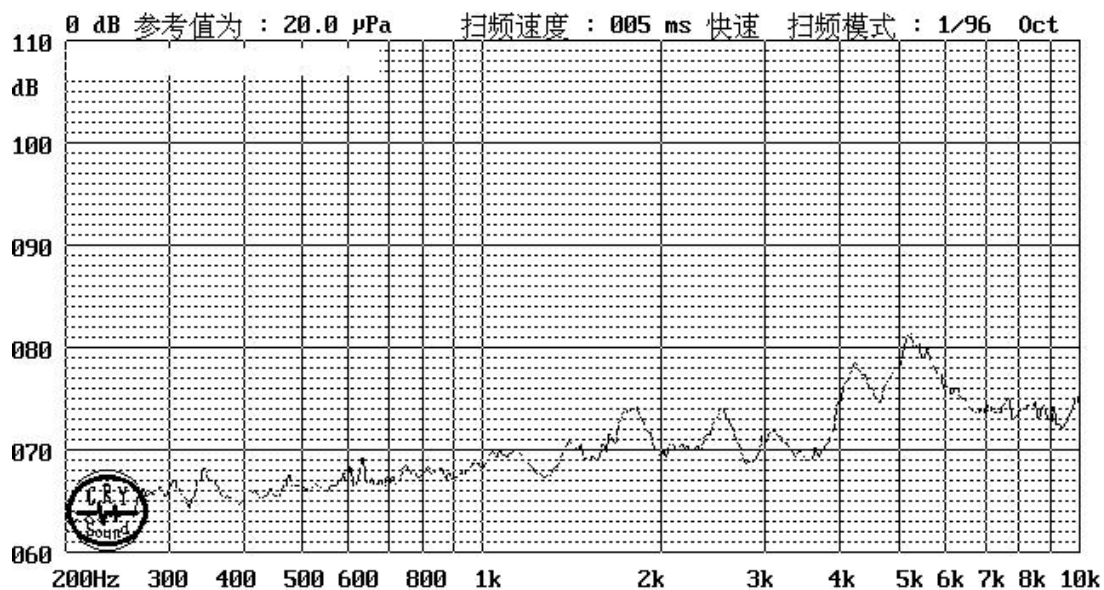
The oscillation frequency, current consumption and sound pressure are measured by the measuring instruments shown below



In the measuring test, buzzer is placed as follows:



## E. Typical Frequency Response Curve

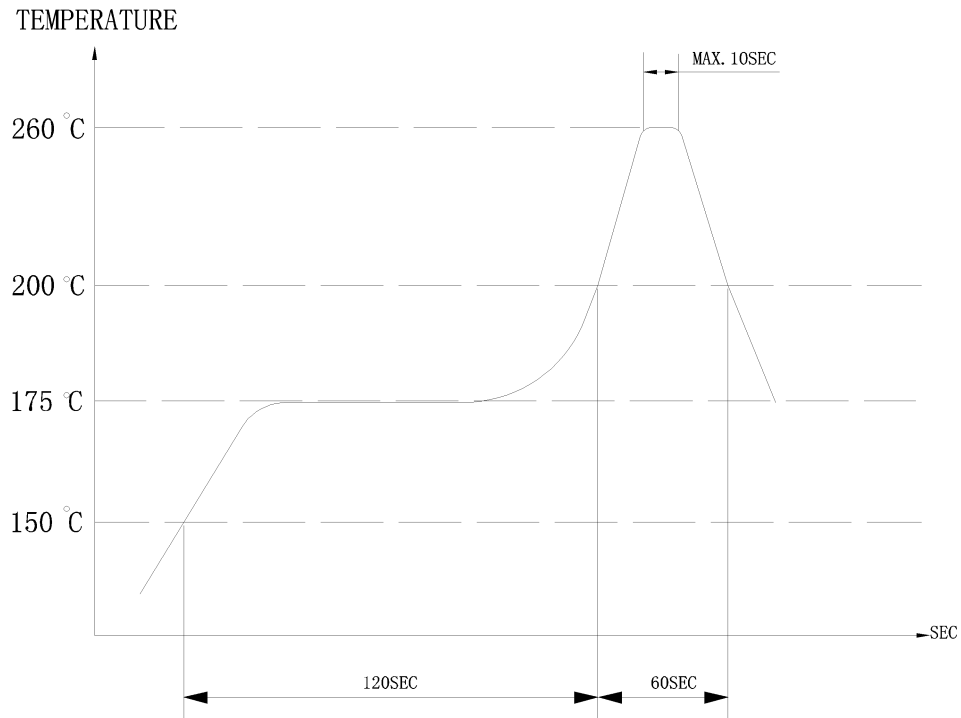


## F. Soldering Condition

(1)Recommendable reflow soldering condition is as follows

(Reflow soldering is twice)

Note:It is requested that reflow soldering should be executed after heat of product goes down to normal.



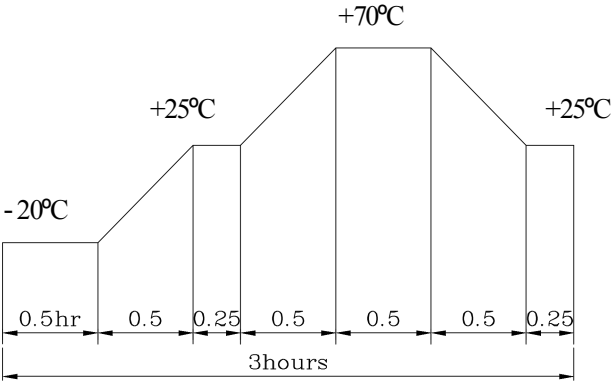
Heat resistant line

(Used when heat resistant reliability test is performed)

(2)Manual soldering

Manual soldering temperature 350° C within 5 sec.

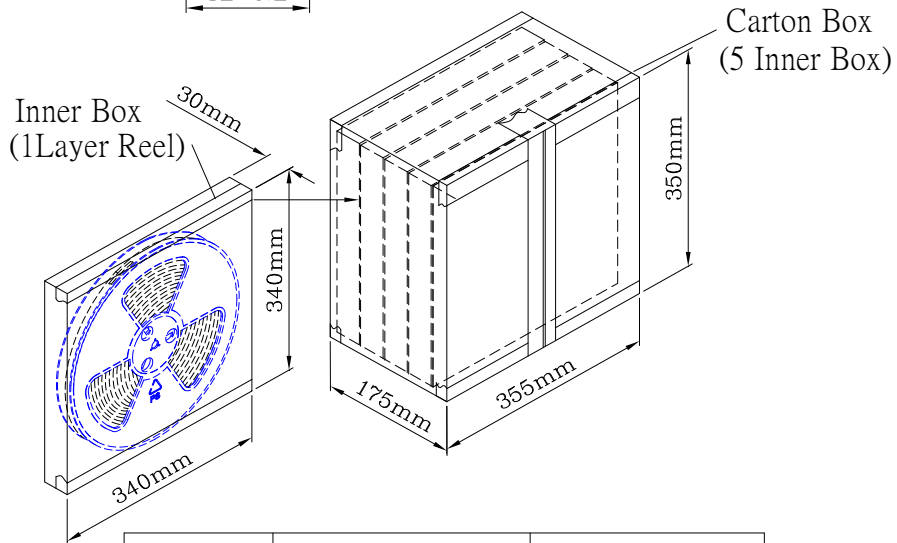
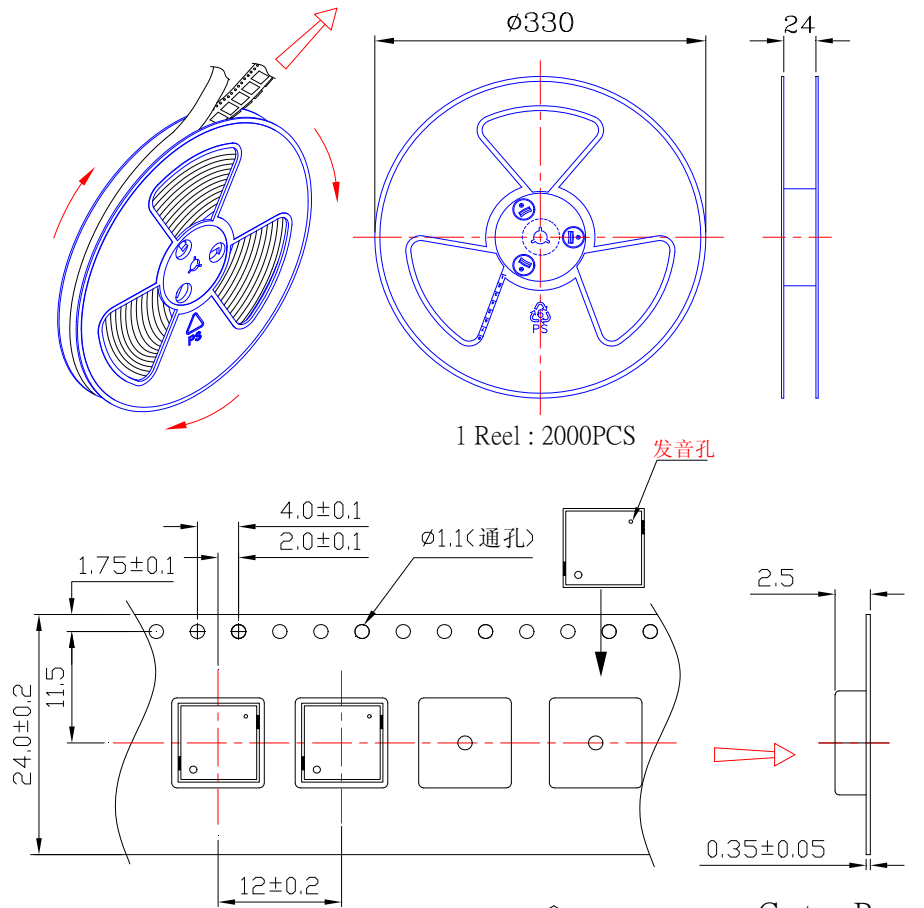
## G. RELIABILITY TEST

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with 80±2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
2	Low Temperature Test (Storage)	After being Placed in a chamber with -30±2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
3	Humidity Test	After being Placed in a chamber with 90-95% R.H. at 40±2°C for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: ±10dB.
4	Temperature Cycle Test	<p>The part shall be subjected to 5 cycles. One cycle shall be consist of :</p>  <p>Allowable variation of SPL after test: ±10dB.</p>
5	Drop Test	Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 75cm . Allowable variation of SPL after test: ±10dB.
6	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours . Allowable variation of SPL after test: ±10dB.
7	Solderability Test	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +300±5°C for 3±1 seconds . 90% min. lead terminals shall be wet with solder (Except the edge of terminals).
8	Terminal Strength Pulling Test	The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds. No visible damage and cutting off.

### TEST CONDITION.

Standard Test Condition	:	a) Temperature : +5 ~ +35°C	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般测试条件	:	a) 温度 : +5 ~ +35°C	b) 湿度 : 45-85%	c) 气压 : 860-1060mbar
Judgment Test Condition	:	a) Temperature : +25 ± 2°C	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
争议时测试条件	:	a) 温度 : +25 ± 2°C	b) 湿度 : 60-70%	c) 气压 : 860-1060mbar

# H. PACKING STANDARD



Inner Box	340mmx340mmx30mm	1x2000PCS=2000PCS
Carton Box	350mmx355mmx175mm	5x2000PCS=10,000PCS

## Revision History

修改项目	修改前	修改后	修改日期	修改人	确认人
① 编带修改	16 宽	24 宽	2014-7-8	Zhu	
②公差	± 0.2	±0.5	2014-9-26	Zhu	