

# 規 格 承 認 書

## PECIFICATION FOR APPROVAL

客 戶  
CUSTOMER : 立创

項 目  
ITEM : 贴片式压电无源蜂鸣器（外部驱动）

型 號  
TYPE : GSC1230YB-3V4000

描述  
DESCRIPTION : L12 x W12 x H3.0 mm 4000Hz 3V ≥75DB 侧发音 LCP 材质

客戶料號  
CUSTOMER NO. :

規 格 書 號  
SPECIFICATION NO.:

版 本  
EDITION NO. : V1.2

日 期  
DATE : 2013-3-25

### 客戶承認

#### CUSTOMER CONFIRM AND SIGN

| 檢查<br>TESTED BY | 審核<br>CHECKED BY | 承認<br>APPROVED BY |
|-----------------|------------------|-------------------|
|                 |                  |                   |

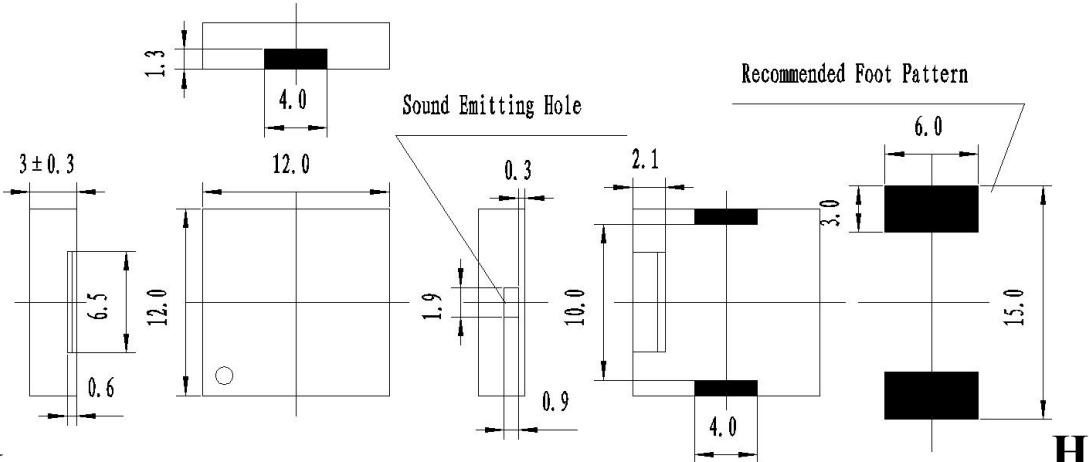
東莞市贏海電子有限公司

DONGUAN INGHAI ELECTRONICS CO.,LTD

| 製作<br>ISSUED BY | 審查<br>CHECKED BY | 確認<br>APPROVED BY |
|-----------------|------------------|-------------------|
| 周明              | 李林               |                   |

地址：廣東省東莞市長安鎮廈邊元灶頭工業區 16-6 號  
電話 / TEL: 0769-83060958 傳真 / FAX: 0769-81608993  
網址：<HTTP://WWW.INGHAI.COM>

**DONGGUAN**



**ING  
AI ELECTRONICS CO.,LTD**

**Model NO:** GSC1230YB-3V4000

**A: DIMEMSIONS** Unit:mm Tolerance: $\pm 0.5$

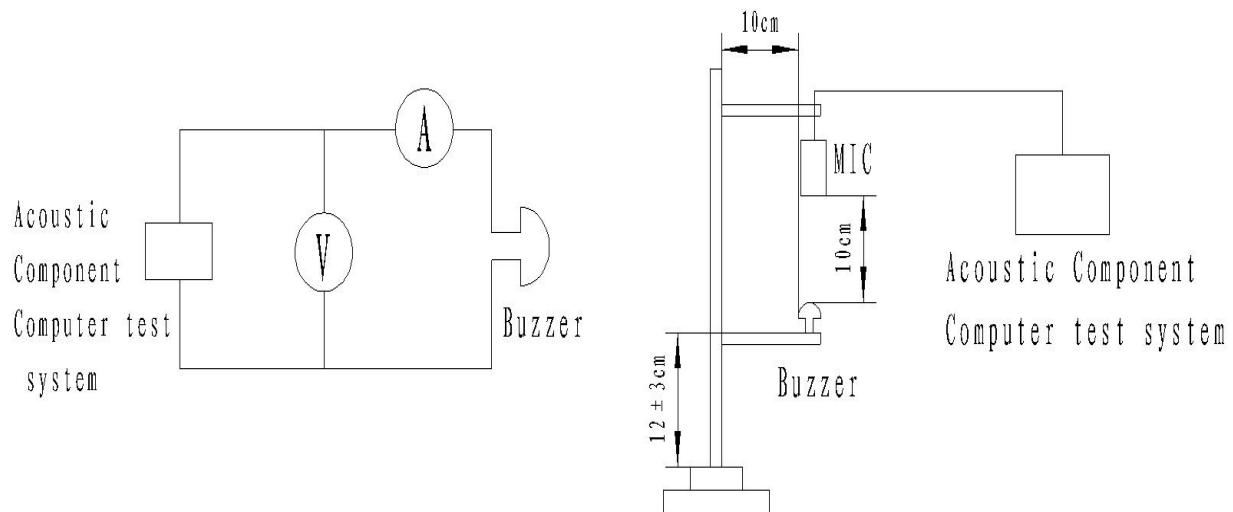
**B: SPECIFICATIONS**

|                                     |                 |
|-------------------------------------|-----------------|
| Model NO                            | GSC1230RB       |
| Rated Voltage                       | 3Vp-p           |
| Operating Voltage                   | 1~25Vp-p        |
| Max.Rated Current                   | Max.3mA         |
| sound Pressure level(dB/min)at 10cm | Min. 75dB       |
| Resonant Frequency                  | 4000Hz          |
| Capacitance                         | 16000 $\pm$ 30% |
| Operating Temperature               | -20 °C~+60 °C   |
| Storage Temperature                 | -30 °C~+70 °C   |
| Case material and color             | LCP / Black     |

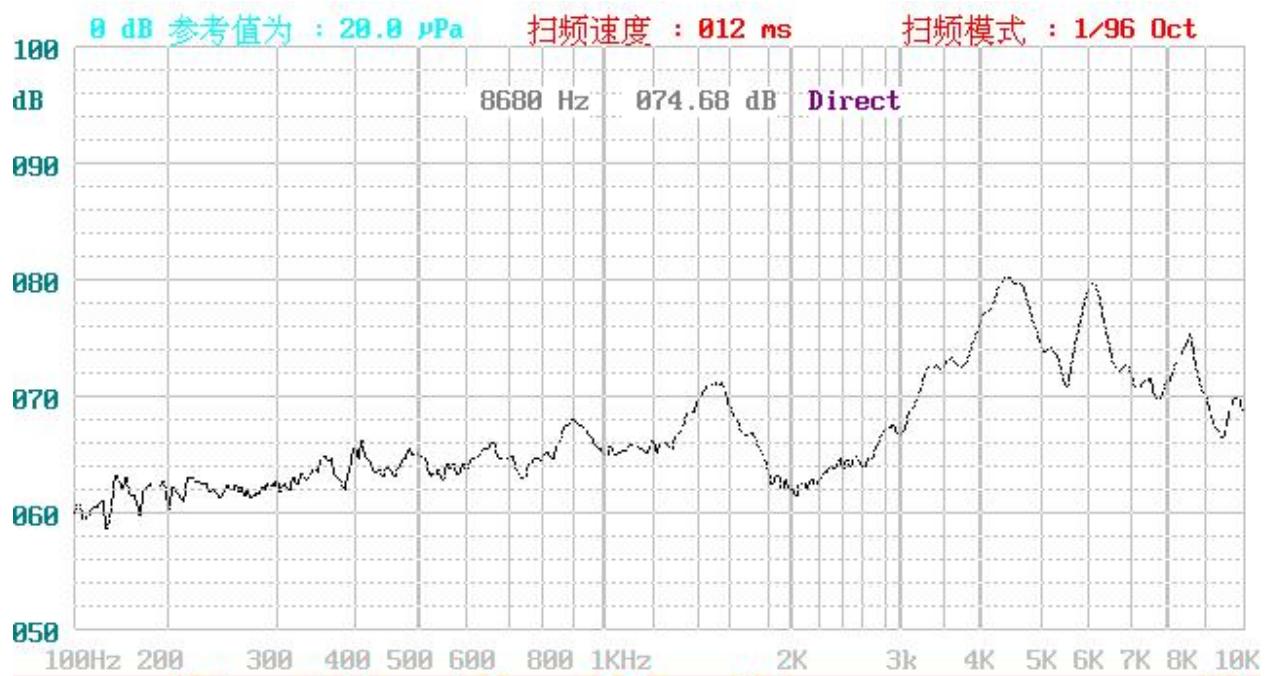
**Measuring condition**

Part shall be measured under a condition (Temperature: 5 ~ 35°C, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25 $\pm$ 3°C, Humidity: 60 $\pm$ 10%R.H. Atmospheric pressure: 860 ~1060hPa) is regulated to measure.

## C. Electrical And Acoustical Measuring Condition



## D:FREQUENCY RESPONSE:



## **E: 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

### **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. High Temperature Test**

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

### **3. Low Temperature Test**

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

### **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

### **5. Temperature Shock Test**

Temperature: $85^\circ\text{C}$  /1hour →  $25^\circ\text{C}/3\text{hours}$  →  $-30^\circ\text{C}/1\text{hour}$  →  $25^\circ\text{C}/3\text{hours}$  (1cycle)

Total cycle: 10 cycles

### **6. Drop Test**

Standard Packaging From 120mm(Drop on hard wood or board of 5cm thick, three sides, six plain.)

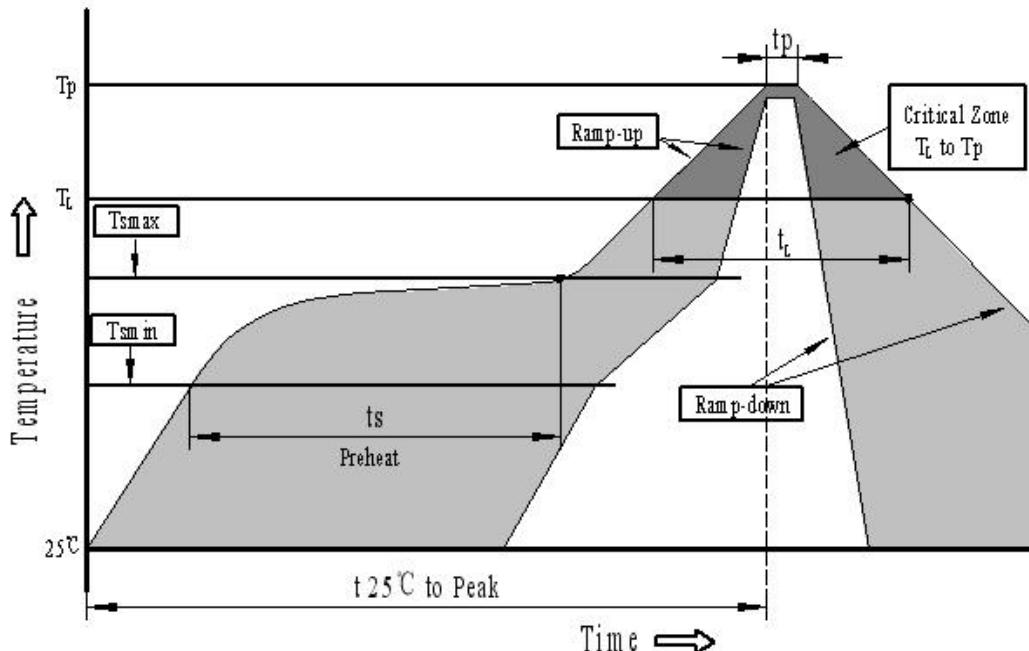
### **7. Vibration Test**

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

#### **Note:**

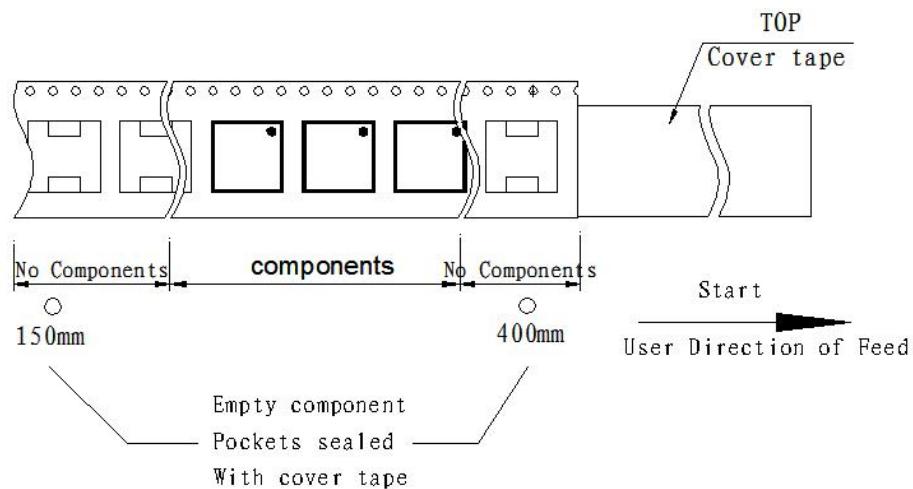
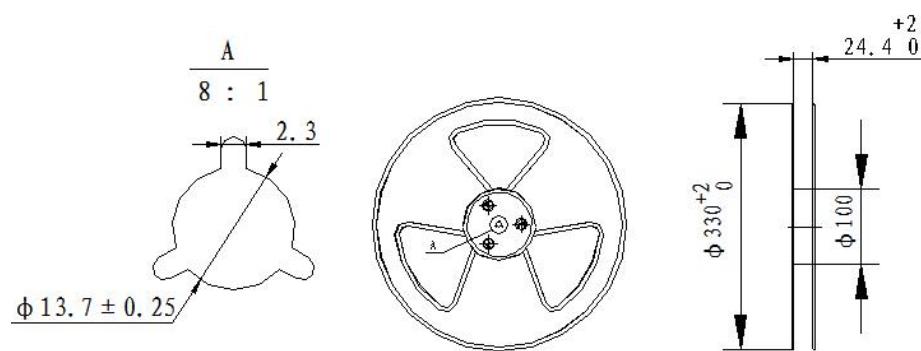
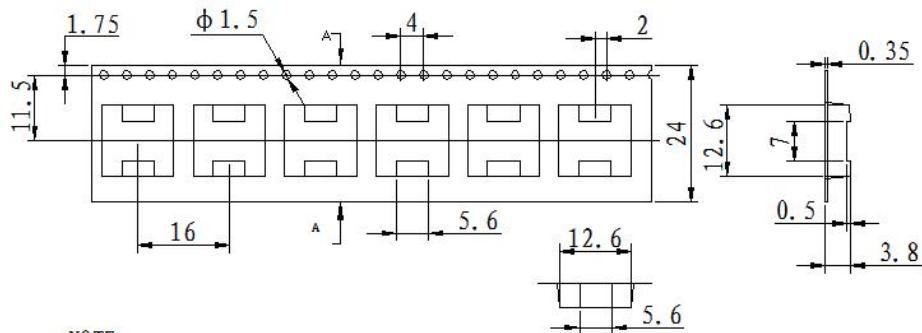
As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign material enters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

## F . Recommended Temp. Profile for Reflow Oven (Fig.1)

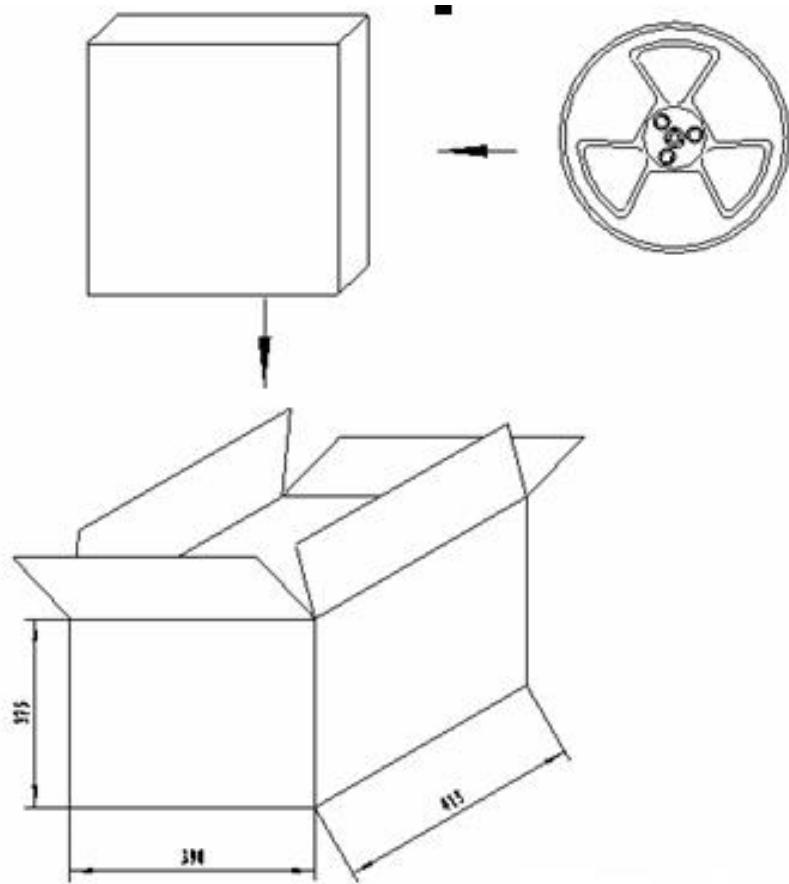


| Profile Feature                                  | Pb-Free Assembly |
|--|------------------|
| Average ramp-up rate( $T_L$ to $T_p$ )           | 3 °C/second max. |
| Preheat  |                  |
| -Temperature Min.( $T_{S\min}$ )                 | 150 °C           |
| -Temperature Min.( $T_{S\max}$ )                 | 200 °C           |
| -Temperature Min.( $t_s$ )                       | 60~180 seconds   |
| $T_{S\max}$ to $T_L$                             |                  |
| -Ramp-up Rate                                    | 3 °C/second max. |
| Time maintained above:                           |                  |
| - Temperature( $T_L$ )                           | 217 °C           |
| - Time( $T_L$ )                                  | 60~150 seconds   |
| Peak temperature( $T_p$ )                        | 245 °C+0/-5 °C   |
| Time within 5 °C of actual Peak temperature (tp) | 6 seconds max.   |
| Ramp-down Rate                                   | 6 °C/second max. |
| Time 25 °C to Peak Temperature                   | 8 minutes max.   |

## G. PACKING:



## H. PACKING:



### NOTES:

1. 1000 PCS per tray
2. Total 10 trays per carton
3. Total 10000 PCS per carton
4. Volume:  $41.5 \times 39 \times 37.5\text{cm}$