

# SPECIFICATION FOR APPROVAL

## 产品规格书

DESCRIPTION : SMD BUZZER  
PART NO. : KLJ-1230  
USER' S PART NO. :  
DATE : 2010.02.23  
CUSTOMER APPROVED :

| Approved By | Checked By | Made By |
|-------------|------------|---------|
|             |            |         |

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# KLJ-1230

DATE:2010.02.23

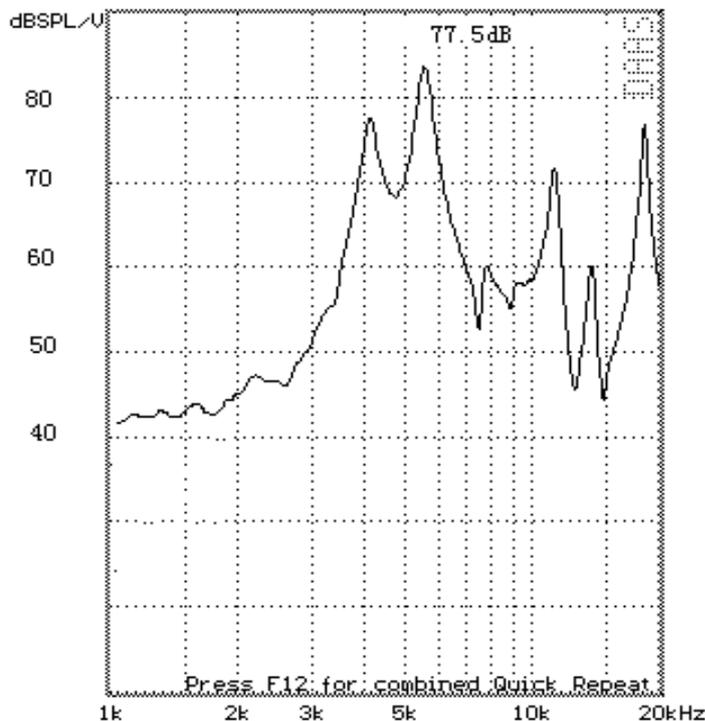
## 1 . Electrical Characteristics

VER :0

|                            |  |
|----------------------------|--|
| Operating Voltage          | Max20Vp-p                                  |
| Current Consumption        | Max 1mA at 3Vp-p/Square Wave/4.0KHz        |
| Sound Pressure Level       | Min 80dB at 10cm/ 3Vp-p/Square Wave/4.1KHz |
| Electrostatic Capacity     | 16000±30%pF at 1 KHz/1V                    |
| Operating Temperature (°C) | -20~ +70                                   |
| Storage Temperature (°C)   | -30 ~ +80                                  |
| Dimension                  | L12×W12×H3.0mm                             |

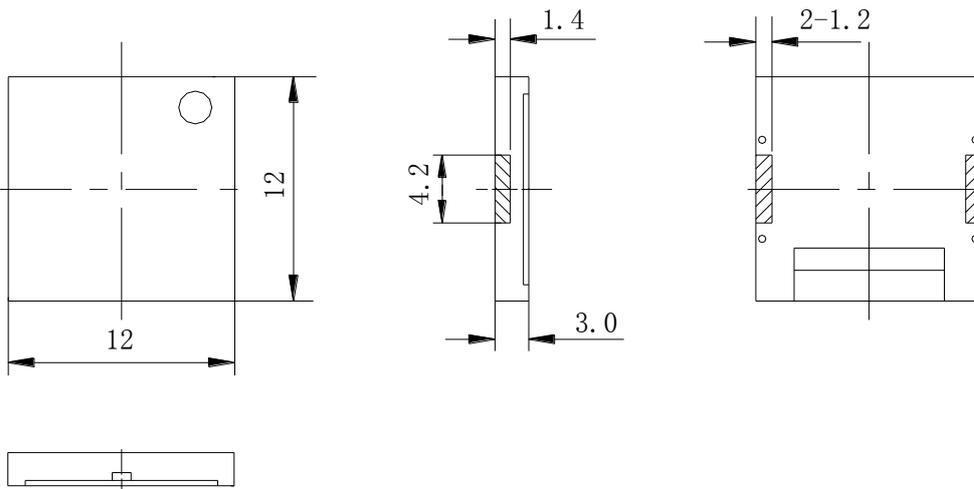
## 2 . Typical Frequency Response Curve

|                                 |                                   |     |
|---------------------------------|-----------------------------------|-----|
| <b>ESC</b> End                  | <b>D A A S</b> Frequency Response | i   |
| Distance Loudsp.- Mic.: 10.0 cm |                                   | M0: |



### 3 . Dimensions and Material

#### 3-1 Shape



Unit: mm Tol:  $\pm 0.3$

#### 3-2 Material

|               |                                   |
|---------------|-----------------------------------|
| Housing       | LCP plastic resin (Color : White) |
| Terminal      | SMD Type                          |
| Weight (Gram) | 0.35                              |

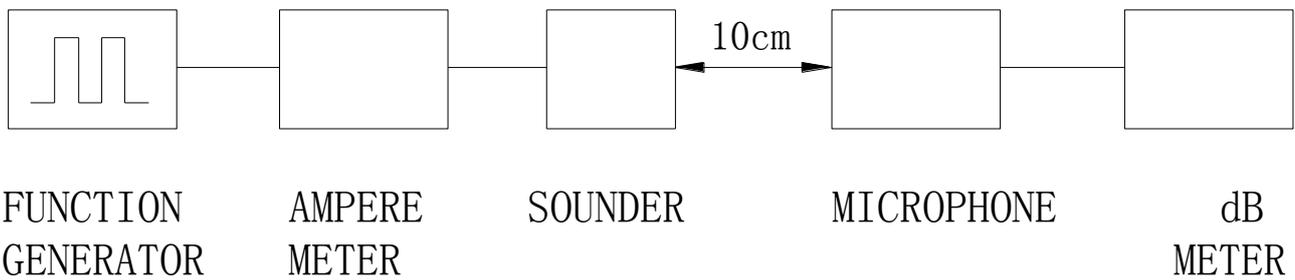
### 4. TESTING METHOD

• **Standard Measurement conditions**

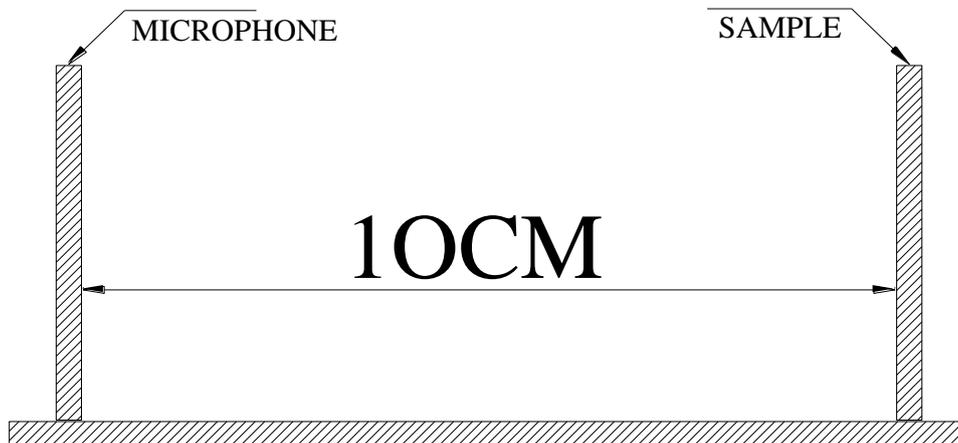
Temperature:  $25 \pm 2 \text{ }^\circ\text{C}$  Humidity: 45-60%

• **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:*



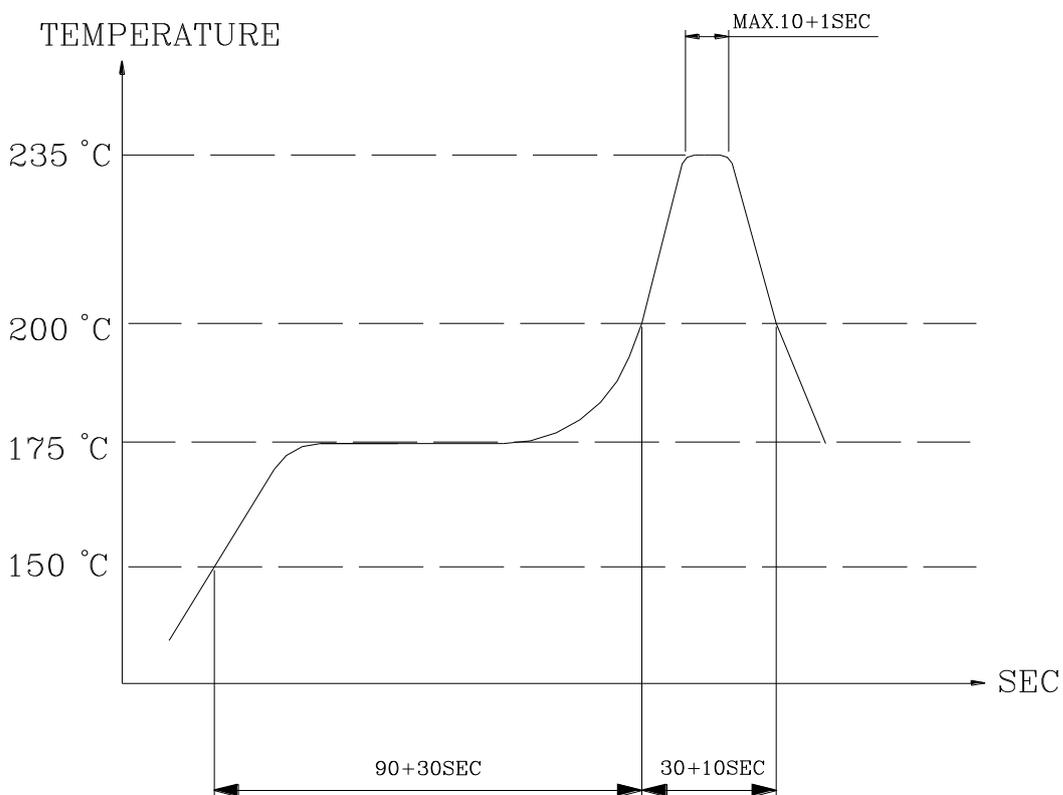
**5. RELIABILITY**

| <b>ITEMS</b>                      | <b>METHOD OF TEST AND MEASUREMENTS</b>  | <b>PERFORMANCE</b>                |
|-----------------------------------|---|-----------------------------------|
| <i>Coldness<br/>withstanding</i>  | <i>After 98 hours of being exposed to -30 °C environment, should be returned to normal environment for 2 hours, then re-proceed to test.</i>                          | <i>No abnormality shall exist</i> |
| <i>Hotness<br/>withstanding</i>   | <i>After 98 hours of being exposed to +100 °C environment, should be returned to normal environment for 2 hours, then re-proceed to test.</i>                         | <i>No abnormality shall exist</i> |
| <i>Humidity<br/>withstanding</i>  | <i>After 98 hours of being exposed to 40 °C 95%RH environment in actual operation, should be returned to normal environment for 2 hours, then re-proceed to test.</i> | <i>No abnormality shall exist</i> |
| <i>Durability</i>                 | <i>Testing after 1,000 hours actual continuous operation.(at standard measurement conditions)</i>   | <i>No abnormality shall exist</i> |
| <i>Drop<br/>withstanding</i>      | <i>A natural drop from 75cm high down to the ground.</i>  | <i>No abnormality shall exist</i> |
| <i>Vibration<br/>withstanding</i> | <i>Vibration of 2,000 cycles per minute, 2mm amplitude, applied in X, Y and Z directions for 30 minutes each.</i>   | <i>No abnormality shall exist</i> |

## 6.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*

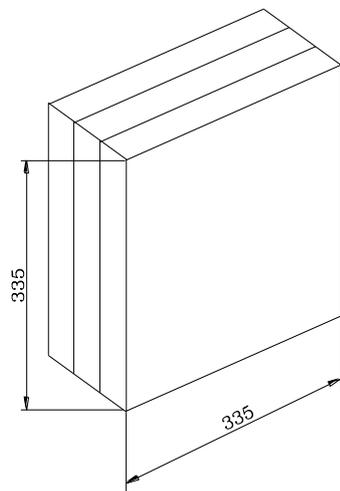
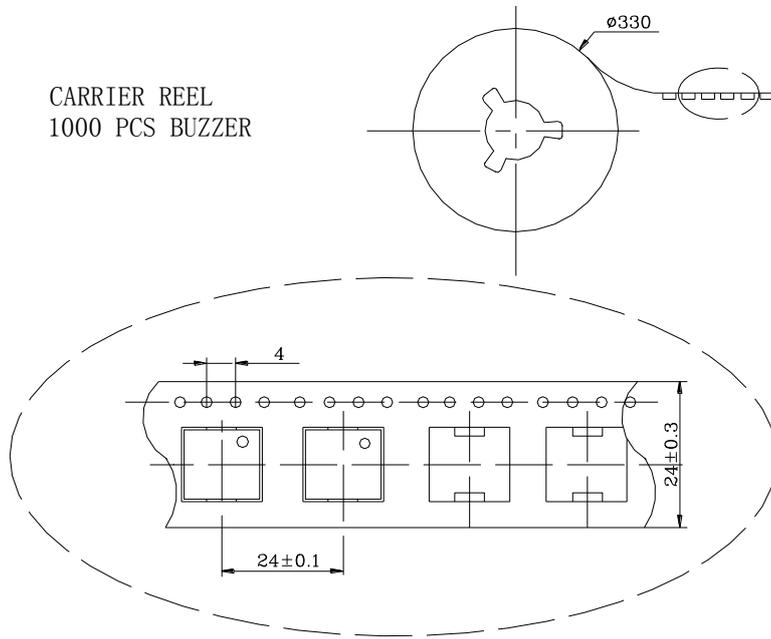
*(Used when heat resistant reliability test is performed)*

(2)Manual soldering

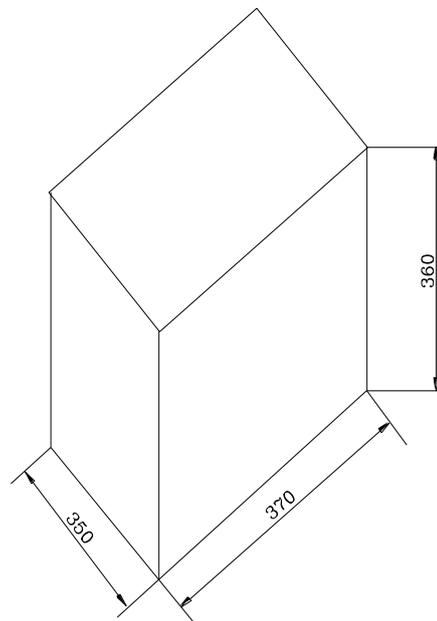
*Manual soldering temperature 350 C within 10 sec.*

## 8. PACKAGE METHOD

CARRIER REEL  
1000 PCS BUZZER



INNER BOX  
1 ROLL CARRIER REEL



CARTON BOX  
10 INNER BOX  
10K PCS BUZZER

Unit:mm