## Specifications

| Rated voltage | 3.6 Vo-p | Vo-p |
| :---: | :---: | :---: |
| Operating voltage | 3.0-5.0 Vo-p | OV |
| Mean current | 80 mA max. | Applying rated voltage, 2730 Hz square wave, $1 / 2$ duty |
| Coil resistance | $20 \pm 3 \Omega$ |  |
| Sound output | Min. 85 (Typical 90) dBA | Distance at 5cm (A-weight free air). Applying rated voltage of 2730 Hz , square wave, $1 / 2$ duty. |
| Rated frequency | 2730 Hz |  |
| Operating tempurature | $-30 \sim+70^{\circ} \mathrm{C}$ |  |
| Storage tempurature | $-40 \sim+85^{\circ} \mathrm{C}$ |  |
| Dimensions | L8.5 x W8.5 $\times$ H3.2 mm | See attached drawing |
| Weight | 0.60 g |  |
| Material | L.C.P. (White) |  |
| Terminal | SMD type (Au Plating) | See attached drawing |
| RoHS | yes |  |

## Frequency Response Curve



## Appearance Drawing

Tolerance: $\pm 0.5$


Measurement Method


## Mechanical Characteristics

| Item | Test Condition | Evaluation Standard |
| :--- | :--- | :--- |
| Solderability | Lead terminals are immersed in solder bath <br> of $+270 \pm 5^{\circ} \mathrm{C}$ for $3 \pm 1$ seconds. | $95 \%$ surface of lead pads must <br> be covered with fresh solder. |
| Soldering Heat Resistance | The product follows the reflow temperature <br> curve to test its reflow thermo stability. | No in interference in operation. |
| Terminal Mechanical Strength | Lead pads shall be soldered onto the pc <br> board and the force of $9.8 \mathrm{~N}(1.0 \mathrm{~kg})$ shall <br> be applied behind the part for 10 seconds. | No damage or cutting off. |
| Vibration | The buzzer will be measured after applying <br> a vibration amplitude of 1.5 mm with 10 to | After the test, the part shall meet |
|  | 55 Hz band of vibration frequency to each of <br> the 3 perpendicular directions for 2 hours. | specifications without any <br> damage to the appearance and <br> dhe SPL should be within $\pm 10$ |
| Drop Test | The part is to be dropped from a height of <br> 75 cm onto a 40 mm thick wooden board 3 <br> times in 3 axis $(X, Y, Z)$ for a total of 9 drops. | dBA of the initial SPL. |

## Environment Test

| Item | Test Condition | Evaluation Standard |
| :---: | :---: | :---: |
| High temp. test | The part will be subjected to $+85^{\circ} \mathrm{C}$ for 96 hours. | After the test, the part shall meet specifications without any damage to the appearance or performance and the SPL should be within $\pm 10 \mathrm{dBA}$ of the initial SPL. |
| Low temp. test | The part will be subjected to $-40^{\circ} \mathrm{C}$ for 96 hours |  |
| Thermal shock | The part will be subjected to 10 cycles. One cycle will consist of: |  |
|  | $+85^{\circ} \mathrm{C}$ |  |
|  | $-40^{\circ} \mathrm{C}$ |  |
|  |  |  |
| Temp./Humidity cycle | The part shall be subjected to 10 cycles. One cycle will last for 24 hours and consist of: |  |
|  |  |  |
|  | $\longmapsto$ 24hours |  |

Mechanical Characteristics

Item
Operating (Life Test)

## Test Condition

1. Continuous life test:

The part will be subjected to 72 hours at $+55^{\circ} \mathrm{C}$ After the test, the part shall meet with $3.6 \mathrm{~V}, 2730 \mathrm{~Hz}$ applied.
2. Intermittent life test:

A duty cycle of 1 minute on, 1 minute off, a minimum of 10,000 times at room temp $\left(+25 \pm 10^{\circ} \mathrm{C}\right)$ with $3.6 \mathrm{~V}, 2730 \mathrm{~Hz}$ applied.

## Evaluation Standard

 specifications without any damage to the appearance. After 4 hours at $+25^{\circ} \mathrm{C}$, the SPL should be within $\pm 10 \mathrm{dBA}$ of the initial SPL.
## Test Conditions

Standard Test Condition Judgement Test Condition
a) Tempurature: $+5 \sim+35^{\circ} \mathrm{C}$
b) Humidity: 45-85\%
c) Pressure: 860-1060 mbar
a) Tempurature: $+25 \pm 2^{\circ} \mathrm{C}$
b) Humidity: 60-70\%
c) Pressure: 860-1060 mbar

## Recommended Temperature Profile for Reflow Oven



## Recommended Land Pattern



## Packaging



