

APPROVAL SHEET



FHD ELECTRONICS CORPORATION

CUSTOMER NAME : _____
COMMODITY : PIEZO INDICATOR
FHD PART NO. : I13875-PC4000A-P1
CUSTOMER PART NO. : _____

| | | | |
|-------------|-------|-------------|---------|
| Approved by | Y. J. | Prepared by | HY Shen |
|-------------|-------|-------------|---------|

| Customer Approval | | | |
|-------------------|--|----------|--|
| Approved | | Rejected | |
| | | | |

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A. PART NO.: I13875-PC4000A-P1

B. SPECIFICATION

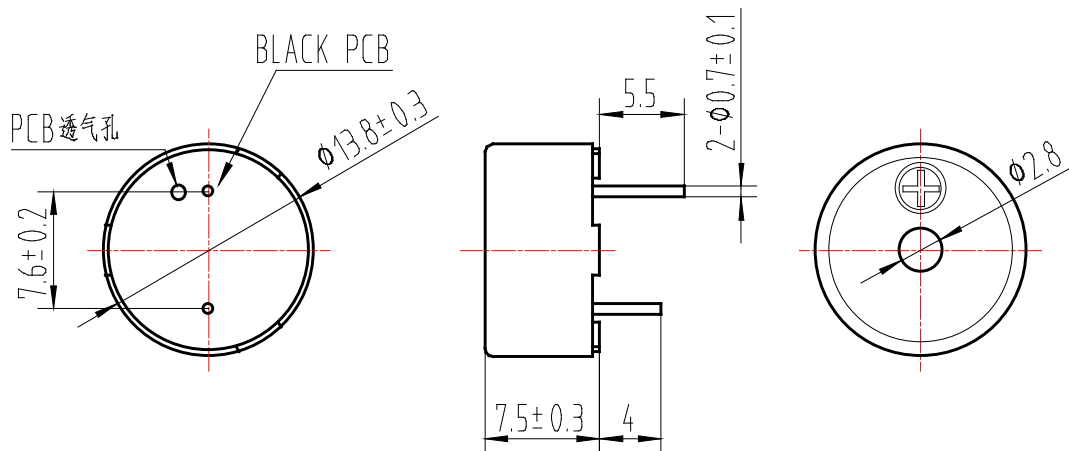
Part shall be measured under a condition (Temperature: 5~35°C, Humidity: 45%~85%R.H., Atmospheric pressure: 860 ~1060hPa) unless the standard condition

(Temperature: 25±3°C, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~1060hPa) is regulated to measure.



| No. | Item | Unit | Specification | Condition |
|-----|-------------------------------------|------|-----------------|------------------------|
| 1 | Resonant Frequency | Hz | 4000 ± 500 | square wave |
| 2 | Rated Voltage | VDC | 12 | |
| 3 | Operating Voltage | VDC | 8 ~ 15 | |
| 4 | Current Consumption | mA | Max. 10 | At 12VDC |
| 5 | Sound Output Level | dB | Min. 85 | At 12VDC @10cm |
| 6 | Operating Temperature | °C | -30 ~ +70 | |
| 7 | Storage Temperature | °C | -40 ~ +85 | |
| 8 | Dimension | mm | Dia. 13.8 x 7.5 | See appearance drawing |
| 9 | Weight (MAX) | gram | 1.3 | |
| 10 | Housing Material | | PBT (Black) | |
| 11 | Tone | | Continuous | |
| 12 | Environmental Protection Regulation | | RoHS | |

B. APPEARANCE DRAWING



Unit: mm

Tolerance: ±0.5mm Except Specified

D. 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 -5dB 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°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: $70^\circ\text{C} / 1\text{hour} \rightarrow 25^\circ\text{C} / 3\text{hours} \rightarrow 30^\circ\text{C} / 1\text{hour} \rightarrow 25^\circ\text{C} / 3\text{hours}$ (1 cycle)

Total cycle: 10 cycles

6. Drop Test

Buzzer is packed in a standard Packaging and is dropped from height 75m on a 5cm thick hard wood or board, three sides, six plain.

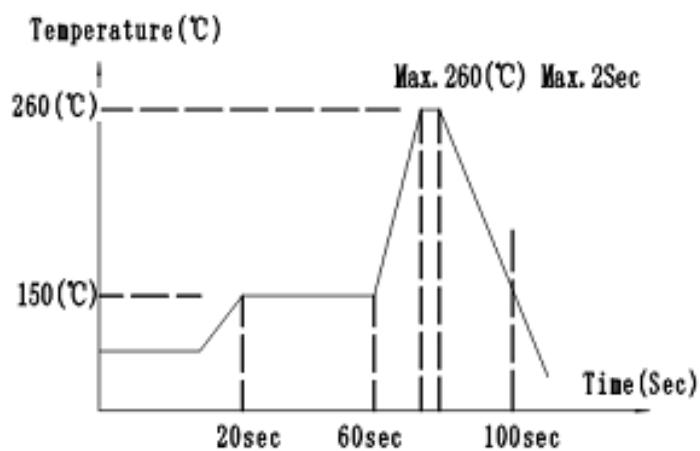
7. Vibration Test

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

Note:

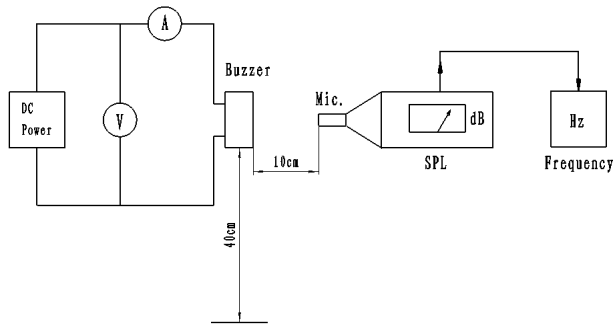
As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign material enter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

E. RECOMMENDED THE WAVE SOLDERING TEMPERATURE

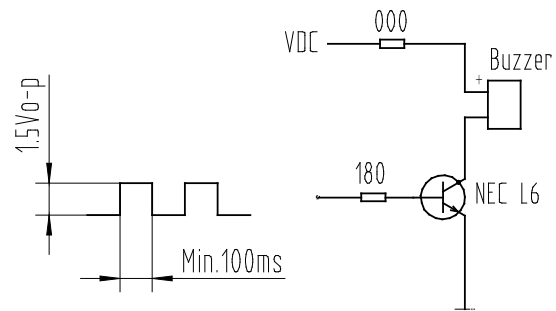


F. ELECTRONICAL AND ACOUSTICAL MEASURING CONDITION

a) Recommended Setting

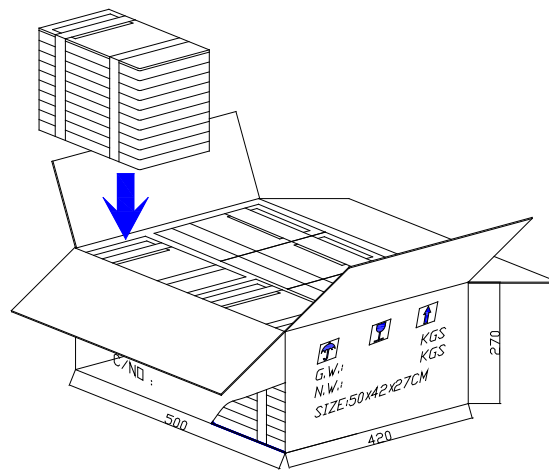
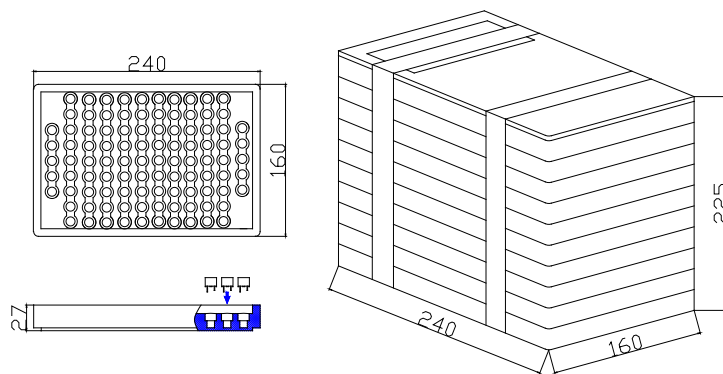


b) Recommended Test Circuit



G. PACKING INFORMATION

| | | |
|------|---|--------------|
| 包装要求 | 泡沫盒料号：F6-714；1000pcs 一堆；5 堆/箱 5000pcs/箱 外箱料号：F6-003；外箱尺寸 50* 41*25cm | |
| 唛头要求 | 内盒： 按订单要求 | 外箱： 按订单要求 |



| | 包装名称 | 包装数量(pcs) | 包装尺寸(mm) | 图解 |
|---|------|-----------|-------------|--------|
| 1 | 泡沫盒 | 100 | 240×160×24 | Fig. 1 |
| 2 | 一叠 | 1000 | 240×160×225 | Fig. 1 |
| 3 | 箱子 | 5000 | 500×410×250 | Fig. 2 |