

# APPROVAL SHEET



## FHD ELECTRONICS CORPORATION

CUSTOMER NAME : \_\_\_\_\_

COMMODITY : Piezo Transducer

FHD PART NO. : T16887-P2000E-P

CUSTOMER PART NO. : \_\_\_\_\_

Approved by	Y. J.	Prepared by	HY Shen
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Customer Approval			
Approved		Rejected	

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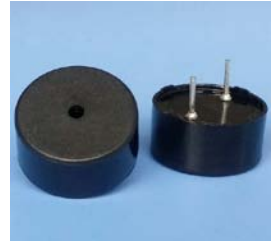
Email: [sales@fhdmfg.com](mailto:sales@fhdmfg.com) Website: [www.fhdmfg.com](http://www.fhdmfg.com)



## 1. Technical Parameter

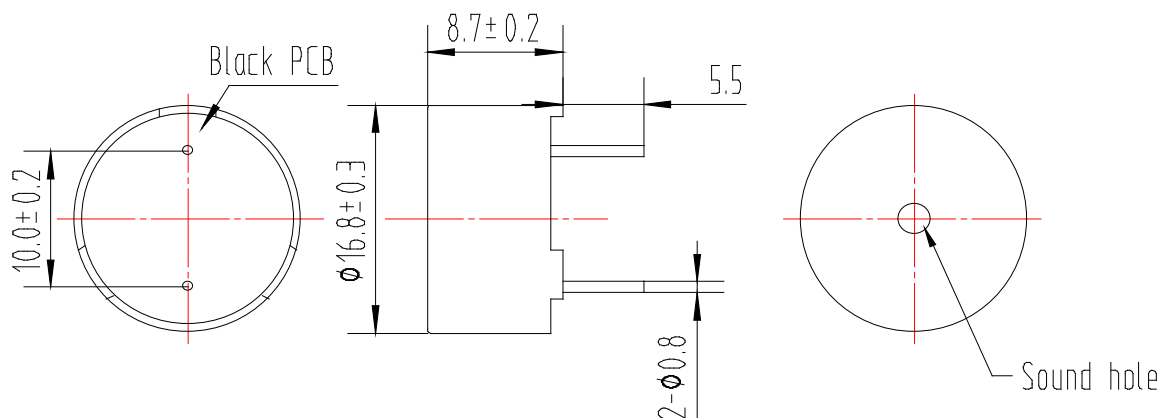
### Measuring condition

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



1	<b>Resonant Frequency</b>	2000Hz ± 400Hz
2	<b>Operating Voltage</b>	1~25Vp-p
3	<b>Rated Current</b>	Max.5mA ,at 2KHz 50% duty Square Wave 3Vp-p
4	<b>Sound Output at 10cm</b>	Min. 70dB,at 2KHz 50% duty Square Wave 3Vp-p
5	<b>Capacitance</b>	25 ± 30% nF at 120Hz
6	<b>Operating Temperature</b>	-20°C ~+70°C
7	<b>Store Temperature</b>	-30°C ~+80°C
8	<b>Net Weight</b>	Approx 1.5g
9	<b>RoHS</b>	Yes

## 2. Dimensions

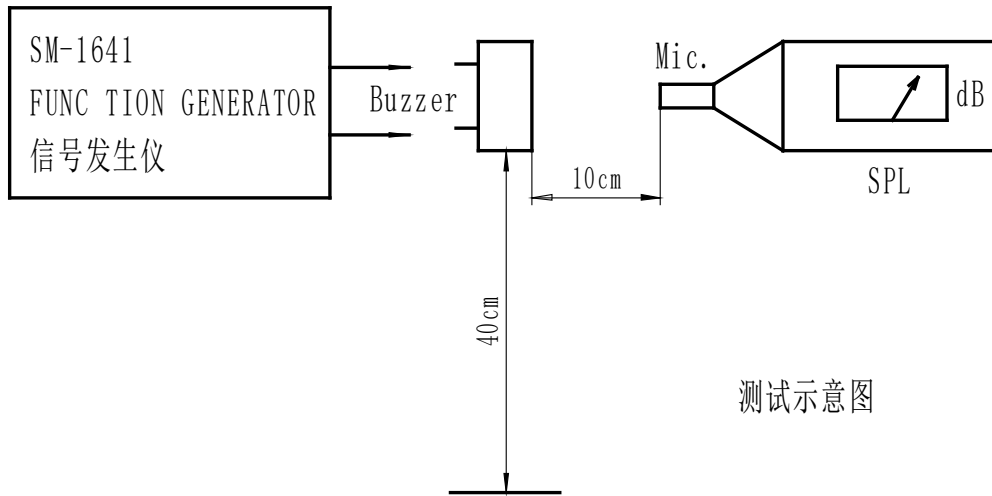


\*Unit: mm; Tolerance: ± 0.5mm Except Specified

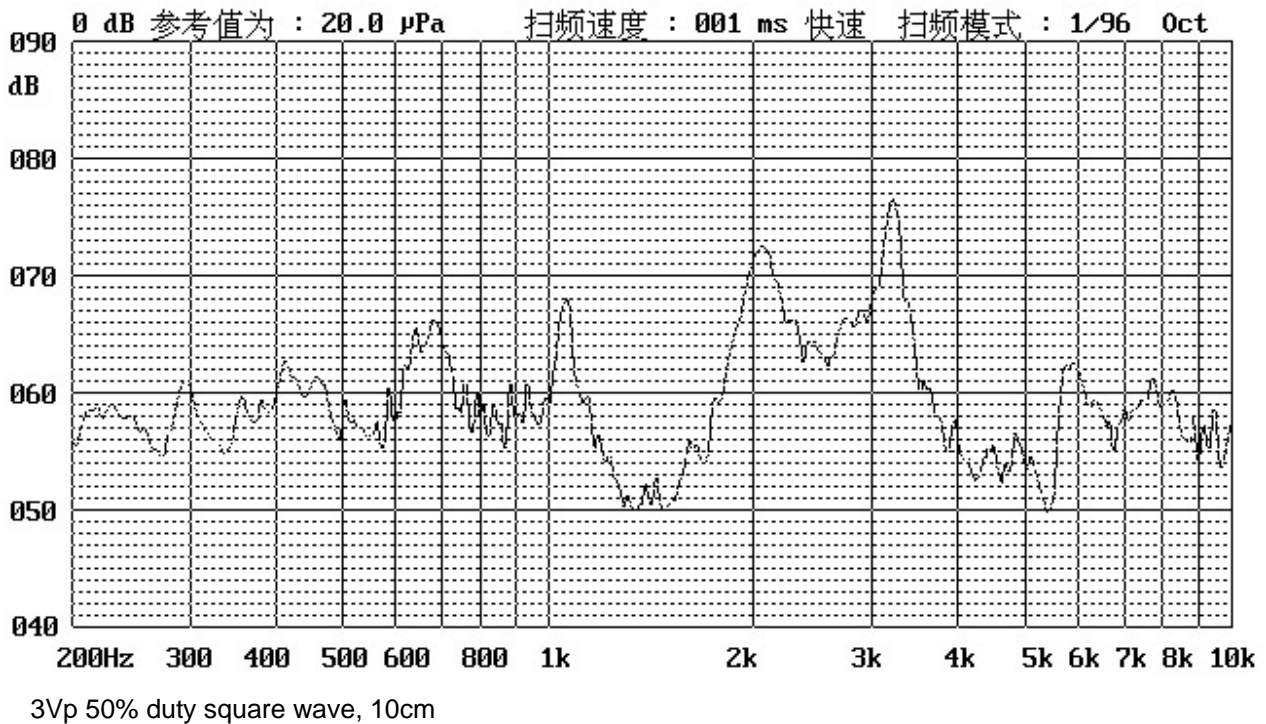
\*Housing material: black PBT

### 3. Electrical And Acoustical Measuring Condition

#### Recommended Setting



### 4. Frequency Response



## 5. 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 -5 dB from the initial value

### 5.1. 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.

### 5.2. High Temperature Test

The part shall be capable of withstanding a storage temperature of  $+70^{\circ}\text{C}$  for 96 hours.

### 5.3. Low Temperature Test

The part shall be capable of with standing a storage temperature of  $-20^{\circ}\text{C}$  for 96 hours.

### 5.4. 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

### 5.5. Temperature Shock Test

Temperature:  $70^{\circ}\text{C}$  /1hour  $\rightarrow$   $25^{\circ}\text{C}$  /3hours  $\rightarrow$   $-20^{\circ}\text{C}$  /1hour  $\rightarrow$   $25^{\circ}\text{C}$  /3hours (1 cycle)

Total cycle: 10 cycles

### 5.6. Drop Test

Standard Packaging From 75cm (Drop on hard wood or board of 5cm thick, three sides, six plain.)

### 5.7. 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 materials enter it.

## 6. PACKING INFORMATION

