



# SPECIFICATIONS

Model No.

MSPS30K

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## 1. SPECIFICATION

	Item	Unit	Specifications
1-1	Rated Voltage	VDC	12
1-2	Operating Voltage	VDC	3-24
1-3	* Rated Current (Max)	mA	15
1-4	* Min Sound Output at 10cm	dB	90
1-5	* Resonant Frequency	Hz	3900±500
1-6	Tone Nature		Single
1-7	Operating Temperature	°C	-30~+70
1-8	Storage Temperature	°C	-40~+85
1-9	Weight	g	8
1-10	Housing Material		PBT (Black)
1-11	Lead Pin Material		Red Copper (DSn)

\* Value Applying at Rated Voltage (DC)



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Model No.

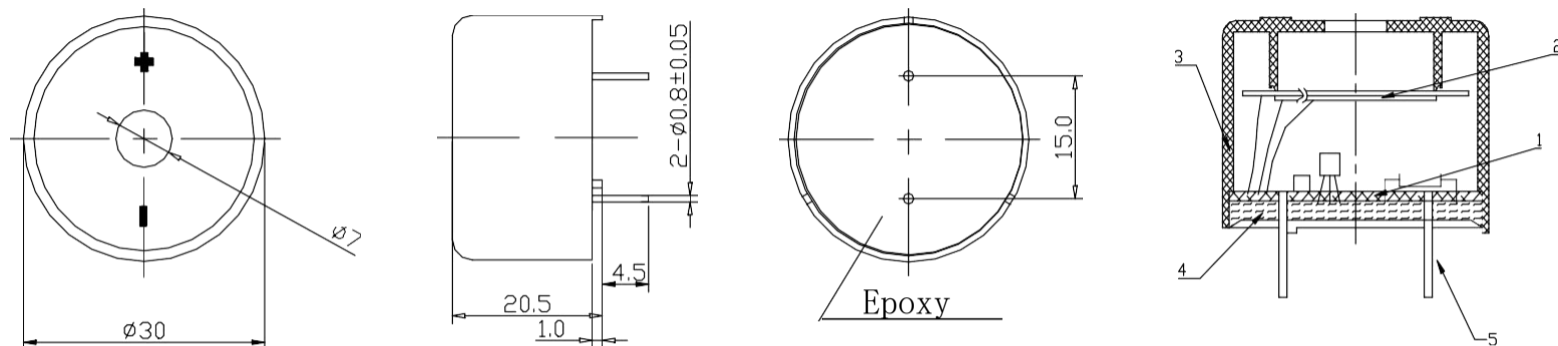
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## 2. DIMENSIONS

Unless otherwise specified, tolerance:  $\pm 0.5$ (unit:mm)



- 1) All parts must meet to ROHS.
- 2) Wave solder allowed and wash not allowed.

5	Lead pin	2	Red Copper (DSn)	
4	Potting		Epoxy	
3	Housing	1	Black PBT	
2	Piezo element	1	Brass	
1	PCB	1	Epoxy Board	
Part No.	Part Name	Q'TY	Material	Remark



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### 3.ENVIRONMENTAL TEST

Item		Specifications
3-1	Storage in High temp.	Storage in +85 °C ± 2 °C test box for 96 hours , then expose to the room temperature for 2 hours without applying power.
3-2	Storage in Low temp.	Storage in -40 °C ± 2 °C test box for 96 hours , then expose to the room temperature for 2 hours without applying power.
3-3	Storage in Humidity	Storage in +40°C±2°C 90-95%RH test box for 96 hours, then expose to the room temperature for 2 hours without applying power.
3-4	Thermal cycle test.	<p style="text-align: center;"> <span style="margin-right: 100px;">+85°C</span> <span style="margin-right: 100px;">+20°C</span> <span>+20°C</span> </p> <p style="text-align: center;"> <span style="margin-right: 100px;">-40°C</span> <span style="margin-right: 100px;">+20°C</span> </p> <p>Make this test for 5 cycles without applying power, then expose to the room temperature for 2 hours.</p>
3-5	Vibration test	<p style="text-align: center;"> <span style="margin-right: 100px;">9.30min</span> <span style="margin-right: 100px;">15min</span> <span style="margin-right: 100px;">30min</span> <span>15min</span> </p> <p style="text-align: center;"> <span style="margin-right: 100px;">0.3g</span> <span style="margin-right: 100px;">10</span> <span>55 Hz</span> </p> <p style="text-align: center;"> <span style="margin-right: 100px;">Amplitude: 1.5mm</span> <span>Time : 1min/axis</span> </p> <p>Make this test for the directions of X, Y, Z for 2 hours each (total 6 hours).</p>
3-6	Drop test	Free drop a unit from the height 70cm to the surface of 10mm thick board , three directions(X,Y,Z).
3-7	Solderability test	Soldering temp.:260±5°C Heat applying time: 3±0.5sec.
<p><b>PASS CRITERION :</b></p> <p>After these tests , the change of S.P.L shall be within ±5 dB .</p>		



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## 4. MEASURING METHOD(BUZZER MODE)

### 4-1 .Test Condition

#### 4-1-1.STANDARD

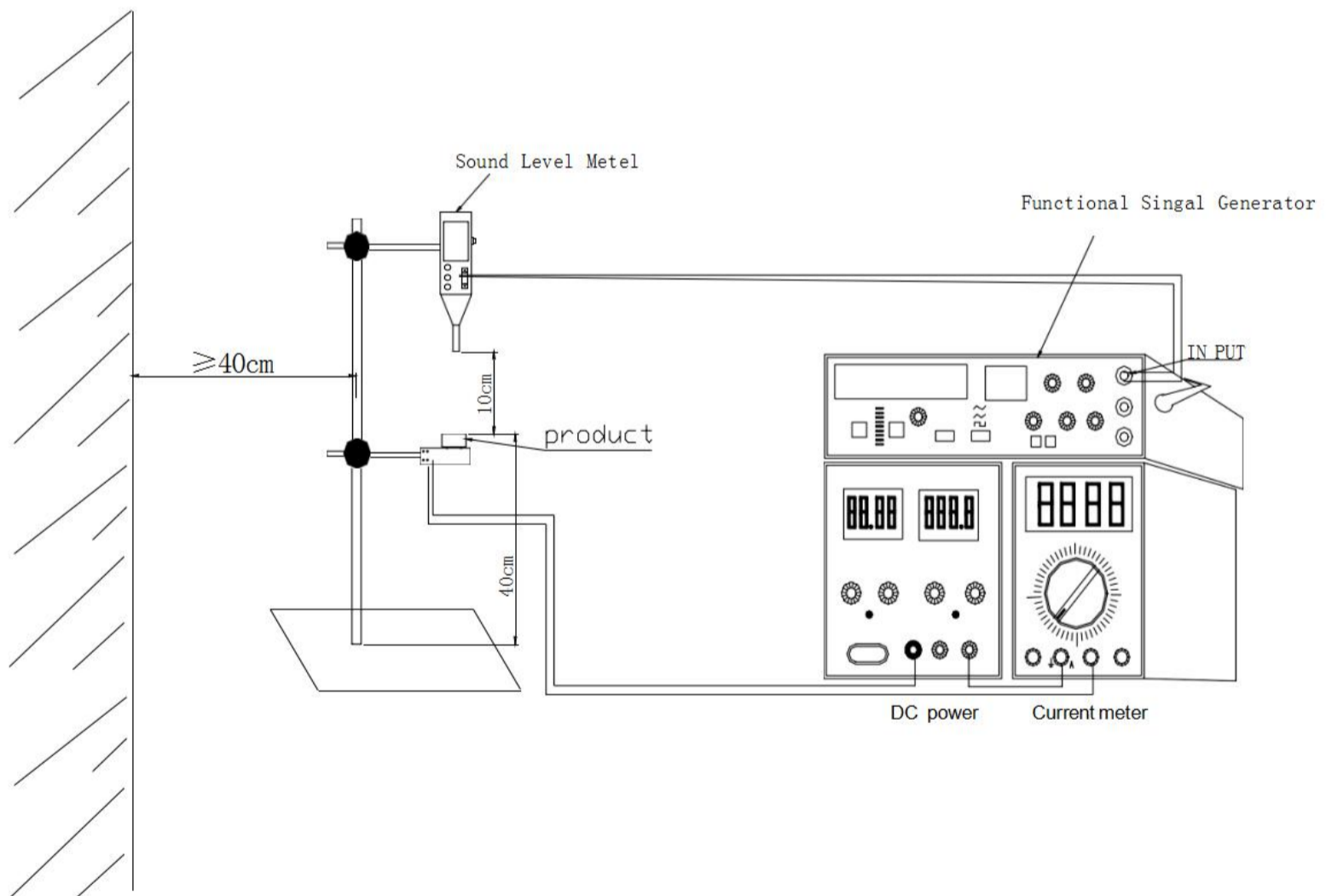
Temperature :  $25 \pm 3^{\circ}\text{C}$  Relative  
humidity : 60% ~ 70%,  
Atmospheric pressure : 860mbar to 1060mbar

#### 4-1-2.JUDGEMENT

Temperature : 15 ~ 35 $^{\circ}\text{C}$   
Relative humidity : 45% ~ 85%,  
Atmospheric pressure : 860mbar to 1060mbar.

### 4-2 . Standard Test Fixture

- 1.rated Voltage: 12VDC
- 2.Resonant Frequency: 3600Hz $\pm$ 500



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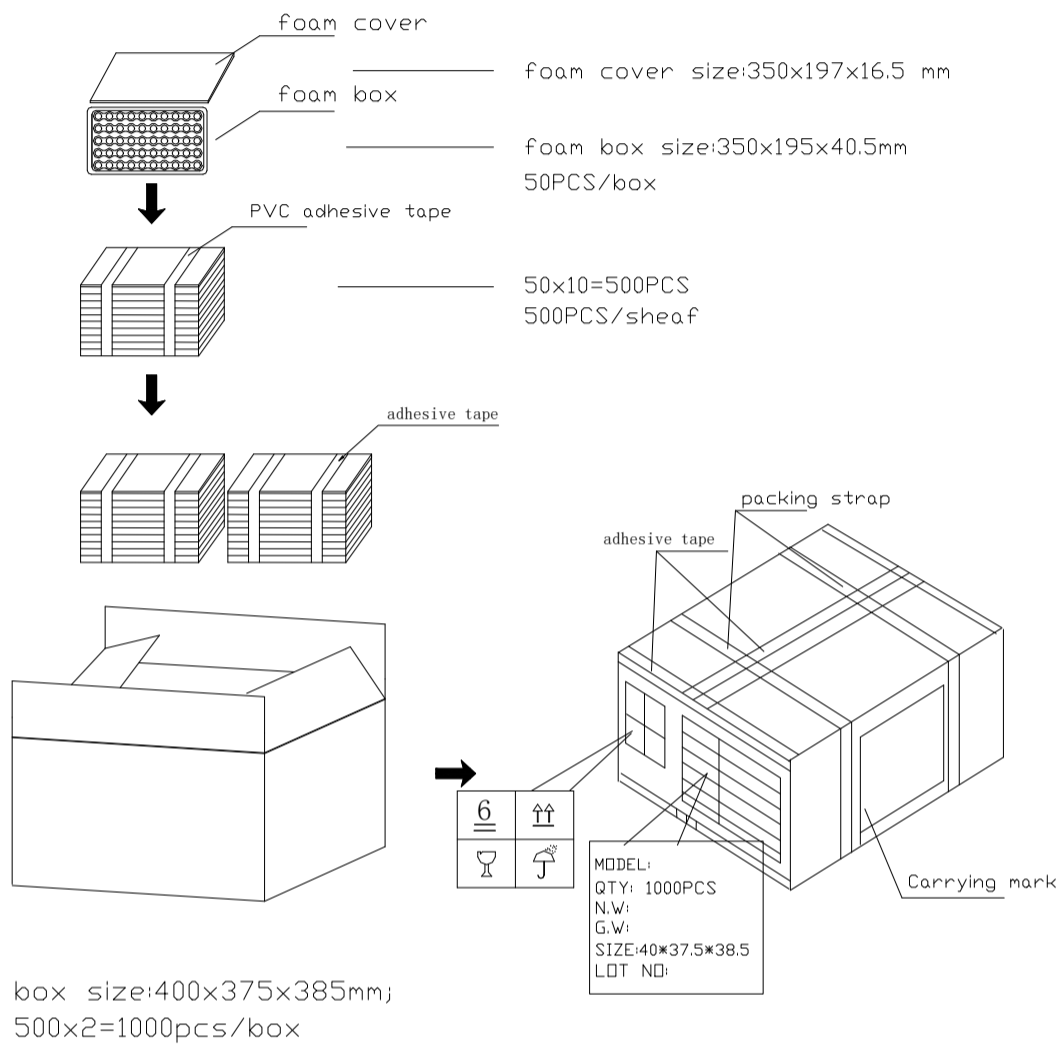
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## 5.PACKING



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