

SPECIFICATION FOR APPROVAL

Customer :

Description : Piezo Audio Transducer

Soberton Part No. : PT-1407

Date : 2009-08-05

Customer Model No. :

Date of Approval	
Authorization Signature	



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Approved	Checked	Issue
WangXueWen 07/21/07	ShiCong 07/21/07	TangYuJing 07/21/07

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1. ELECTRICAL AND ACOUSTICAL SPECIFICATION

	Item	Unit	Specifications
1-1	Rated Voltage (Square Wave)	Vp-p	5
1-2	Operating Voltage	Vp-p	1-20
1-3	* Rated Current (Max)	mA	2
1-4	* Min Sound Output at 10cm	dB	80
1-5	* Resonant Frequency	Hz	4000±500
1-6	Capacitance at 120Hz	pF	15000±30%
1-7	Operating Temperature	℃	-20~+70
1-8	Storage Temperature	℃	-30~+80
1-9	Weight	g	1
1-10	Housing Material	Black Noryl	
1-11	Lead Pin Material	Red Copper	
1-12	Tone Nature	Single	

* Value Applying at Rated Voltage (resonant frequency , 1/2 duty , square wave)

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2.ENVIRONMENTAL TEST

	Item	Specifications
2-1	Storage in High temp.	Storage in $+80^{\circ}\text{C}\pm 2^{\circ}\text{C}$ test box for 240 hours , then expose to the room temperature for 2 hours without applying power.
2-2	Storage in Lower temp.	Storage in $-30^{\circ}\text{C}\pm 2^{\circ}\text{C}$ test box for 240 hours , then expose to the room temperature for 2 hours without applying power.
2-3	Storage in Humidity	Storage in $+40^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 90-95%RH test box for 48 hours, then expose to the room temperature for 2 hours without applying power.
2-4	Thermal cycle test.	Make this test for 5 cycles without applying power, then expose to the room temperature for 2 hours.
2-5	Vibration test	Amplitude:1.5mm Time :1min/axis Make this test for the directions of X,Y, Z for 2 hours each (total 6 hours).
2-6	Drop test	Free drop a unit from the height 100cm to the surface of 10mm thick board ,three directions(X,Y,Z).
2-7	Solderability test	Soldering temp.: $260\pm 5^{\circ}\text{C}$ Heat applying time: $3\pm 0.5\text{sec}$.

PASS CRITERION :

After these tests , the change of S.P.L shall be within $\pm 10\text{ dB}$.

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3.MEASURING METHOD(BUZZER MODE)

3-1 .Test Condition

3-1-1.STANDARD

Temperature : $25 \pm 3^{\circ}\text{C}$

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

3-1-2.JUDGEMENT

Temperature : $15 \sim 35^{\circ}\text{C}$

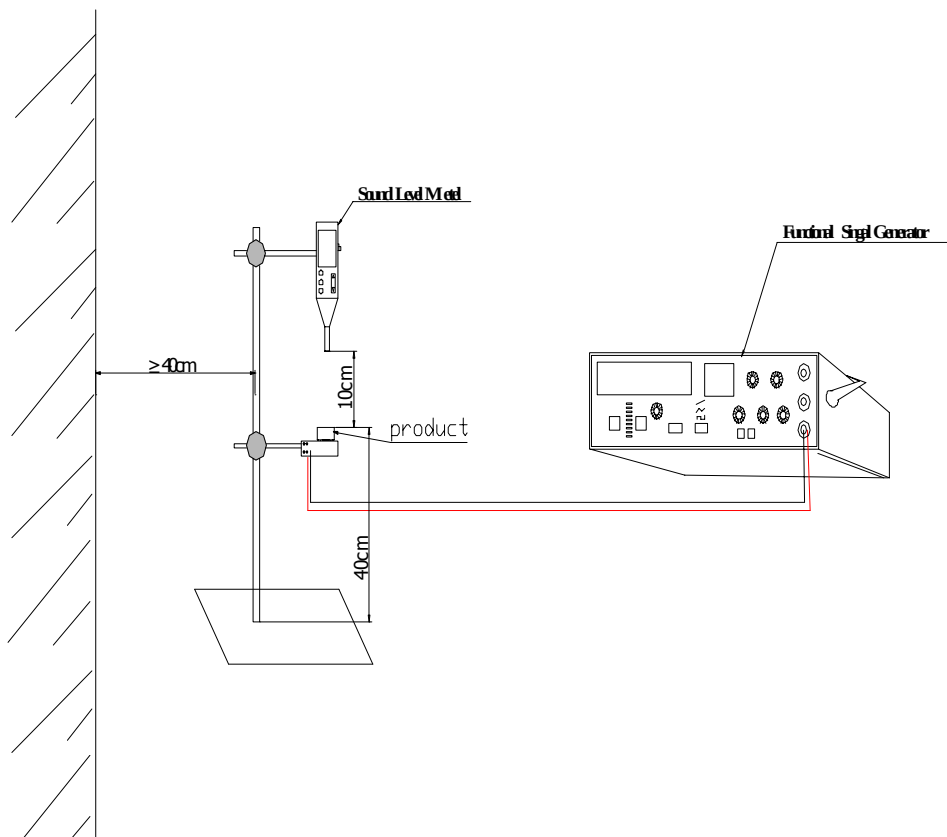
Relative humidity : 45% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

3-2 . Standard Test Fixture

1.rated Voltage(Square wave):5V

2.Resonant Frequency:4000Hz



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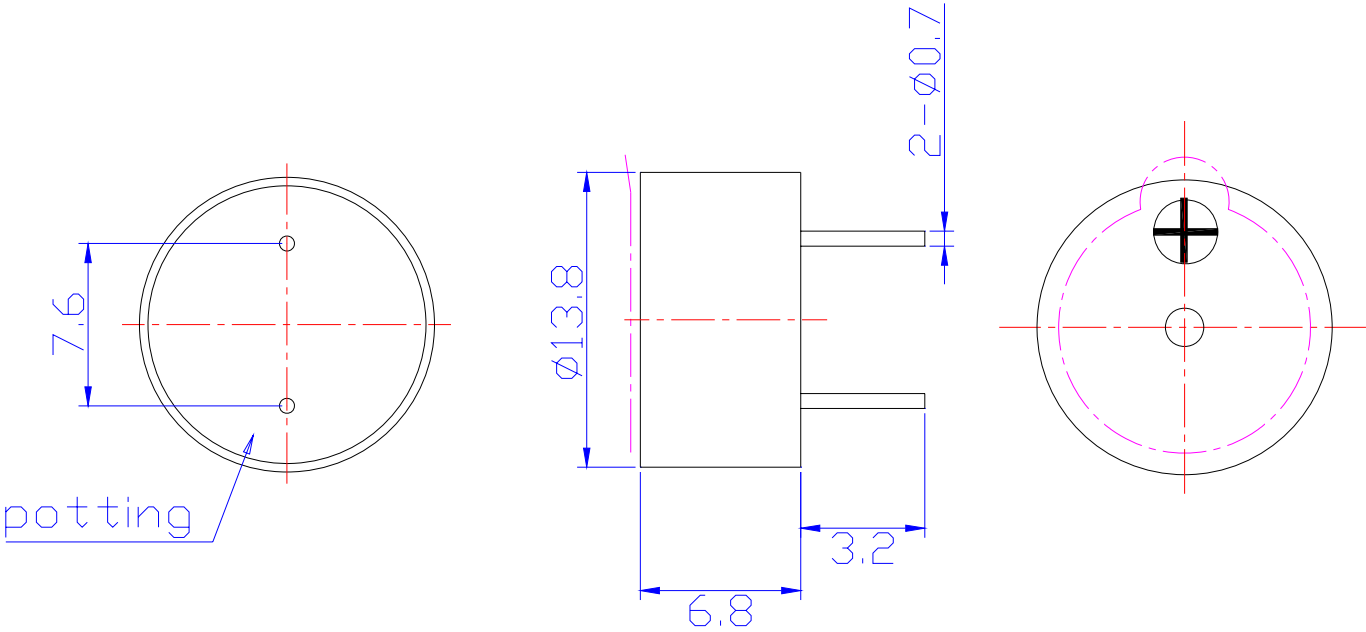
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5.DIMENSIONS

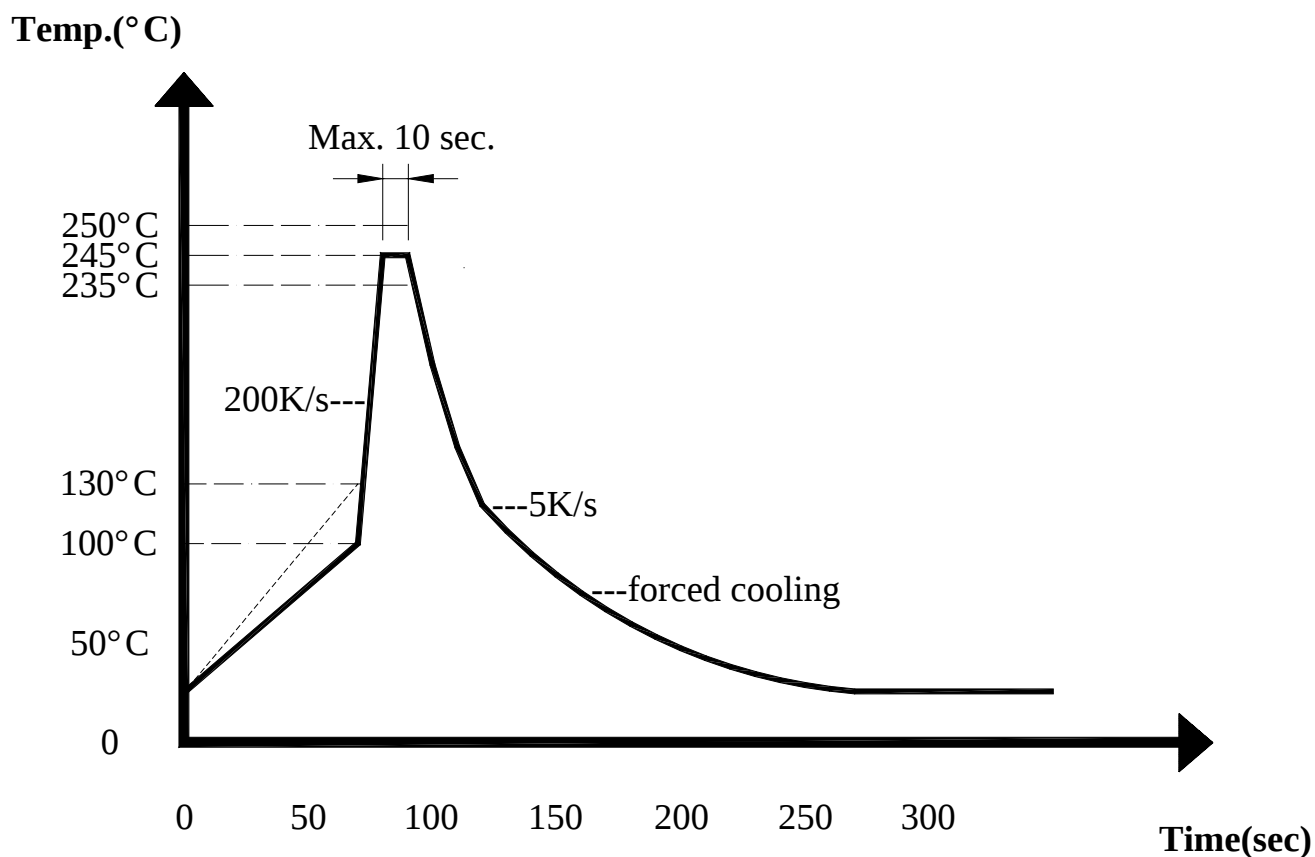
Unless otherwise specified,tolerance:±0.5(unit: mm)



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6. WAVE SOLDER CURVE

* Wave Soldering profile of lead-free



Recommendable wave soldering condition is as follows.

Note 1: It is requested that wave soldering should be executed after heat of product goes down to normal temperature.

Note 2: Peak wave temperature of 235°C ~ 250°C maximum of 10 sec. .

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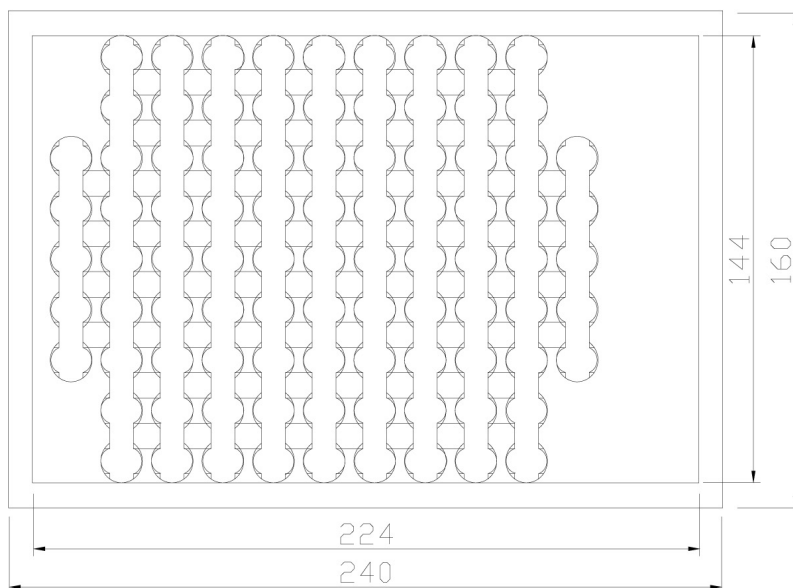
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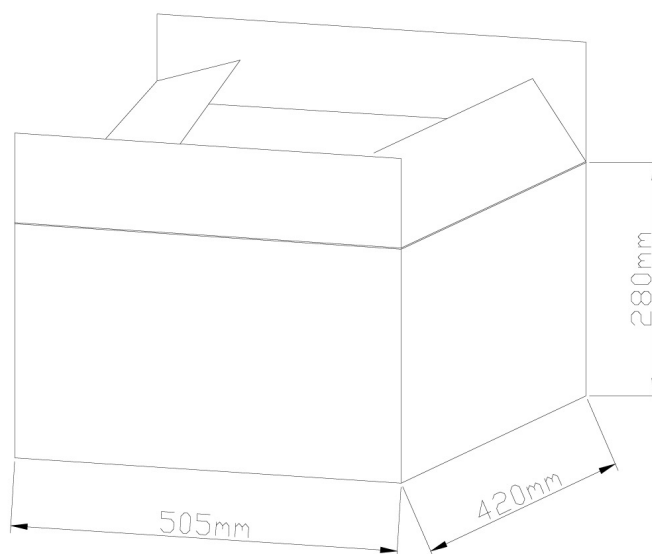
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7.PACKING



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