

SPECIFICATION FOR APPROVAL

Customer :

Description : Piezo Audio Transducer

Soberton Part No. : PT-1625

Date : 2007-11-25

Customer Model No. :

Date of Approval	
Authorization Signature	



**211 N. First Street
Minneapolis, MN. 55401**

612-849-6205

[Http://www.soberton.com](http://www.soberton.com) E-mail : info@soberton.com

Approved	Checked	Issue
Ryan 2007/11/29	Wang Cheng 2007/11/29	Song Qi 2007/11/29

SPECIFICATIONS

Model No.

PT-1625

Page

1/6

1. ELECTRICAL AND ACOUSTICAL SPECIFICATION

	Item	Unit	Specifications
1-1	Rated Voltage (Square Wave)	Vp-p	3.0
1-2	Operating Voltage	Vp-p	3-25
1-3	* Rated Current (Max)	mA	1
1-4	* Min Sound Output at 4.0kHz/10cm	dB	73
1-5	* Resonant Frequency	Hz	4000±500
1-6	Capacitance at 120Hz	pF	15000±30%
1-7	Operating Temperature	°C	-20~+75
1-8	Storage Temperature	°C	-40~+85
1-9	Weight	g	1.0
1-10	Housing Material	Black LCP	
1-11	Pin Type	SMD	
1-12	Tone Nature	Single	

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

		11/25/07	Song Oi	Wang Cheng	Rvan
Issue No	Description	Date	Issue	Check	Approval

SPECIFICATIONS

Model No.

PT-1625

Page

2/6

2.ENVIRONMENTAL TEST

	Item	Specifications
2-1	Storage in High temp.	Storage in $+85^{\circ}\text{C}\pm 2^{\circ}\text{C}$ test box for 120 hours , then expose to the room temperature for 2 hours without applying power.
2-2	Storage in Lower temp.	Storage in $-40^{\circ}\text{C}\pm 2^{\circ}\text{C}$ test box for 120 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 120 hours, then expose to the room temperature for 2 hours without applying power.
2-4	Thermal cycle test.	<p>Make this test for 5 cycles without applying power, then expose to the room temperature for 2 hours.</p>
2-5	Vibration test	<p>Amplitude:1.5mm Time :1min/axis</p> <p>Make this test for the directions of X,Y, Z for 2 hours each (total 6 hours).</p>
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.: $235\pm 5^{\circ}\text{C}$ Heat applying time: $2.0\pm 0.5\text{sec}$.

PASS CRITERION :

After these tests, the change of S.P.L shall be within $\pm 5\text{ dB}$.

		11/25/07	Song Qi	Wang Cheng	Ryan
Issue No	Description	Date	Issue	Check	Approval

SPECIFICATIONS

Model No.

PT-1625-P

Page

3/6

3.MEASURING METHOD

3-1 .Test Condition

1. STANDARD

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

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

2. JUDGEMENT

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

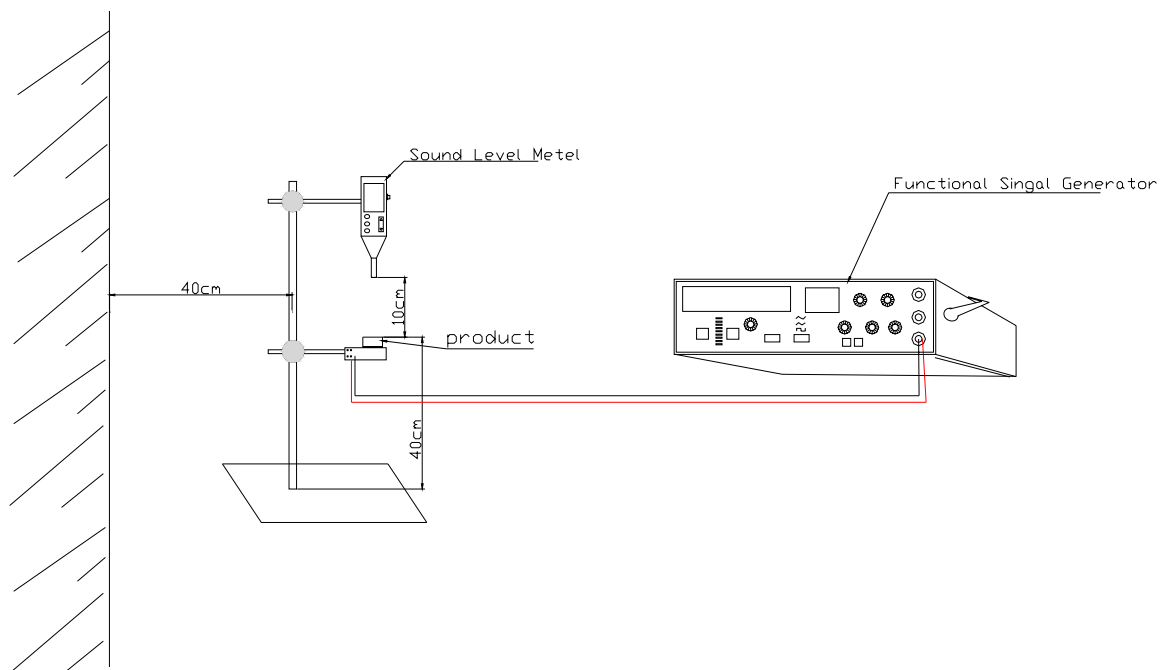
Relative humidity : 45% ~ 85%,

Atmospheric pressure: 860mbar to 1060mbar.

3-2. Standard Test Fixture

1. Rated Voltage(Square wave): 3.0V

2. Resonant Frequency: 4000Hz



		11/25/07	Song Qi	Wang Cheng	Ryan
Issue No	Description	Date	Issue	Check	Approval

SPECIFICATIONS

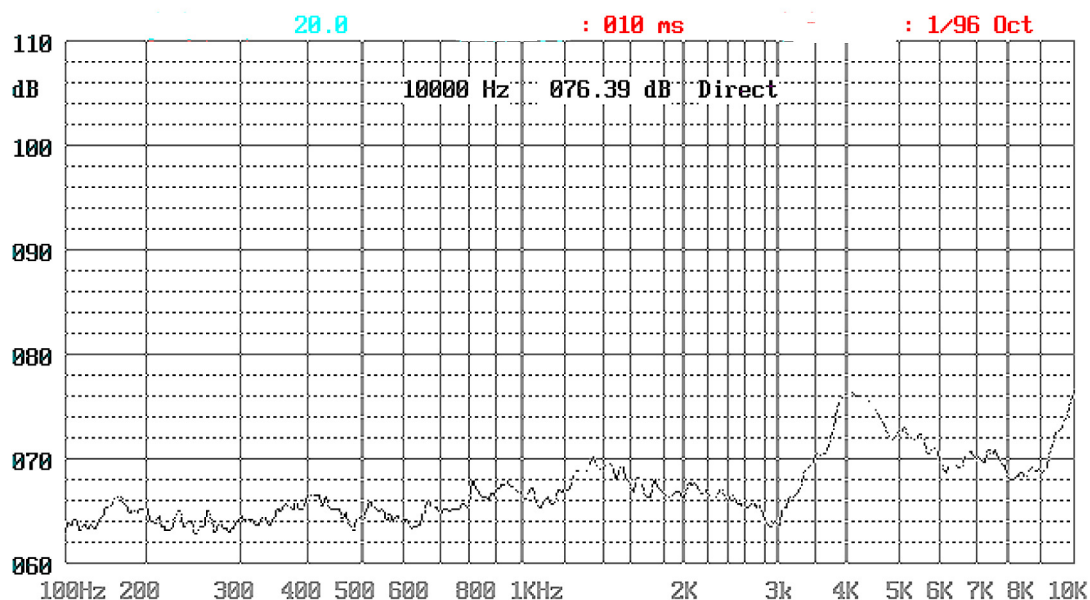
Model No.

PT-1625

Page

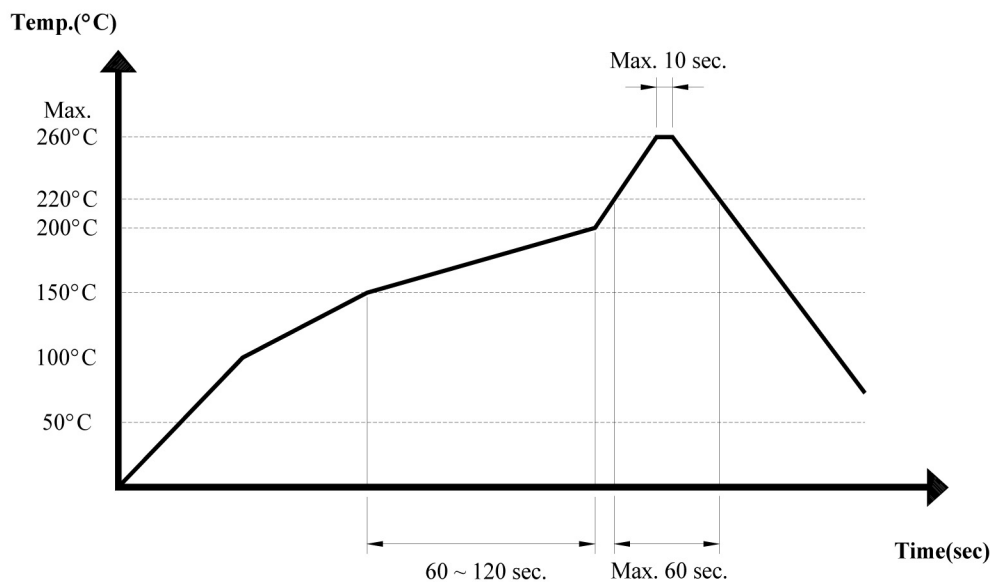
4/6

4.FREQUENCY RESPONSE:



5.RECOMMENDED TEMP.

* Reflow profile of lead-free



Recommendable reflow soldering condition is as follows.

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

Note 2: Peak reflow temperature of 260°C, with a maximum duration of 60 sec. between 220°C and 260°C

		11/25/07	Song Qi	Wang Cheng	Ryan
Issue No	Description	Date	Issue	Check	Approval

SPECIFICATIONS

Model No.

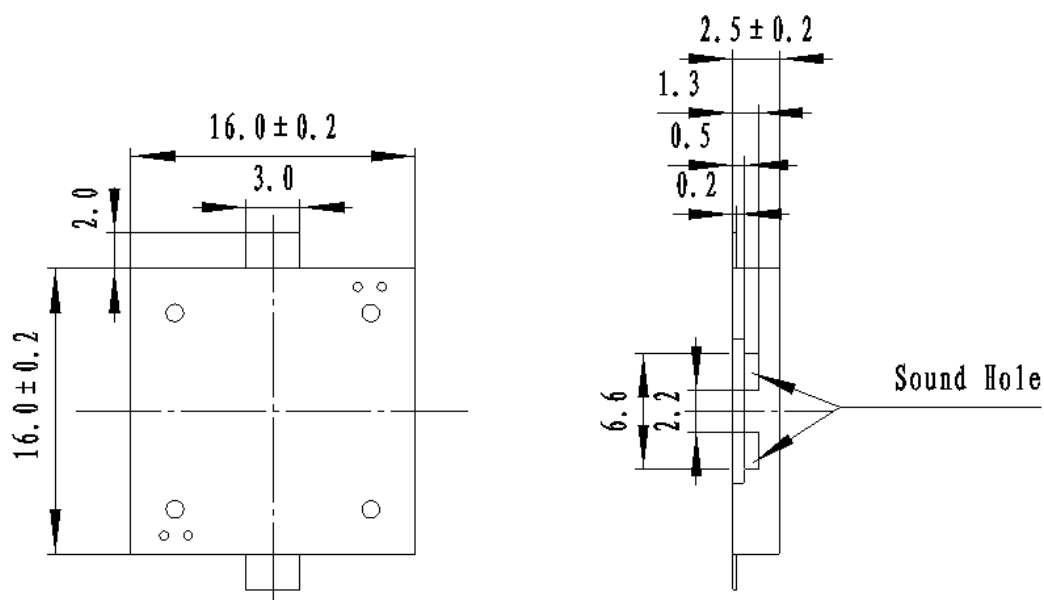
PT-1625

Page

5/6

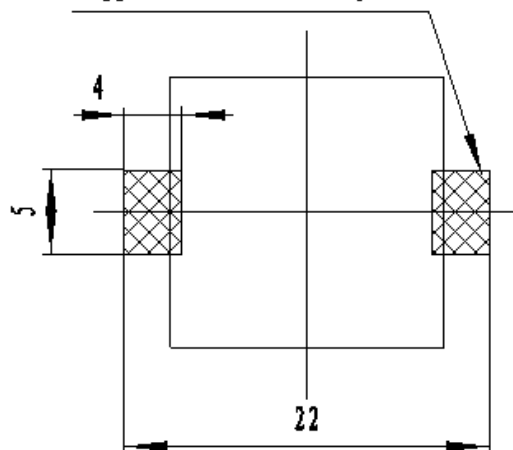
6.DIMENSIONS

Unless otherwise specified, tolerance: ± 0.2 (unit: mm)



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

Suggested Pad PCB-Layout



		11/25/07	Song Qi	Wang Cheng	Ryan
Issue No	Description	Date	Issue	Check	Approval

Soberton Inc.

SPECIFICATIONS

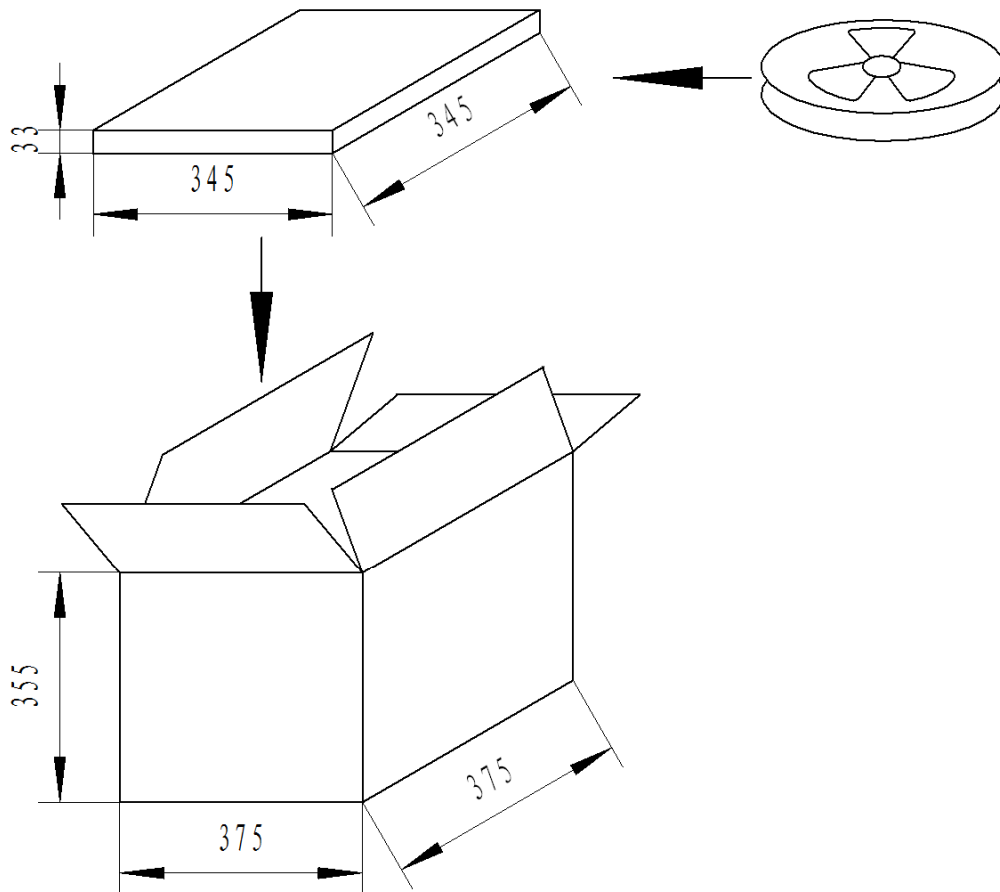
Model No.

PT-1625

Page

6/6

7.PACKING



NOTES:

1. 1000 PCS per box
2. Total 10 box per carton
3. Total 10000 PCS carton

UNIT: mm

		11/25/07	Song Qi	Wang Cheng	Ryan
Issue No	Description	Date	Issue	Check	Approval

Soberton Inc.