# SPECIFICATION FOR APPROVAL

Customer :

**Description**: Magnetic Transducer

Soberton Part No. : WT-1212

Date : 2008-10-13

Customer Model No. :

Date of Approval	
Authorization	
Signature	

## Doberton Inc.

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Approved	Checked	Design	
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2008/10/01	2008/10/01	2008/10/01	

B:SPECIFICATION ■ Test condition: TEMP=+25±2 °C Related humidity=65±5% Air pressure:860-1060mbar				
NO.	Item	Unit	Specification	Condition
1	Rated Voltage	Vo-p	12.0	Vo-p
2	Operating Voltage	Vo-p	10.0 - 14.0	
3	Mean Current	mA	Max. 40	Applying rated voltage & rated frequency, square wave 1/2 duty
4	Coil Resistance	Ω	$140 \pm 15\%$	
5	Sound Output	dBA	87 at 10cm	Distance at 10cm(A-weight free air), Applying rated voltage & rated frequency, square wave,1/2duty
6	Rated Frequency	Hz	2400±200	
7	Operating Temp	°C	-20~+60	
8	Storage Temp	°C	-30~+70	
9	Dimension	mm	Φ 12.0 × H 9.5	See attached drawing.
10	Weight	gram	2.0	
11	Material		PBT (Black)	
12	Terminal		Pin type	See attached drawing
13	Environmental Protection Regulation		RoHS Compliant	
14	Storage life	month	3	3 months preservation at room temp(25±3°C), Humidity40%

#### **C:ENVIRONMENT TEST**

No.	Item	Test condition	Evaluation standard
1	High temp. test	After being placed in a chamber at $+70^{\circ}$ C for 96 hours.	
2	Low temp. test	After being placed in a chamber at $-30^{\circ}$ C for 96 hours.	
3	Thermal shock	The part shall be subjected to 10 cycles. One cycle shall consist of; $+70^{\circ}C$ $-30^{\circ}C$ 30min 30min 30min 60min	After the test the part shall meet specifications without any degradation in appearance and performance except SPL. after 4 hours at $+25^{\circ}$ C, The SPL shall be in $\pm 10$ dBA compared with initial
4	Temp. / Humidity Cycle	The part shall be subjected to 10 cycle and consist of; $+70^{\circ}C$ a, b: 90~98%RH $+25^{\circ}C$ a b 12±0.5hrs 3hrs c d	one.

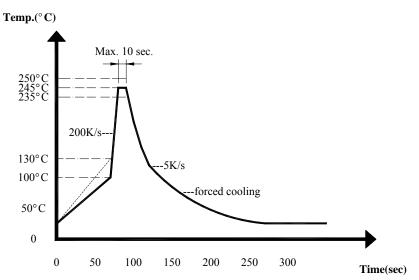
#### **D: RELIABILITY TEST**

No.	Item	Test condition	Evaluation standard	
1	Operating life test	<ul> <li>Applying rated voltage, rated frequency, square wave , 1/2 duty cycle :</li> <li>Ordinary temperature         The part shall be subjected to 96 hours at room temperature.     </li> </ul>	After the test the part shall meet specifications without any degradation in appearance and performance except SPL. after 4 hours at $+25^{\circ}$ C, The SPL shall be in $\pm$ 10 dBA compared with initial one.	
<b>TEST CONDITION.</b> Standard Test Condition : a)Temperature: +5~+35°C b)Humidity:45~85% c)Pressure: 860~1060mbar				
Judgment Test Condition :a)Temperature: $+25\pm2^{\circ}$ C b)Humidity:60~70% c)Pressure: 860~1060mbar				

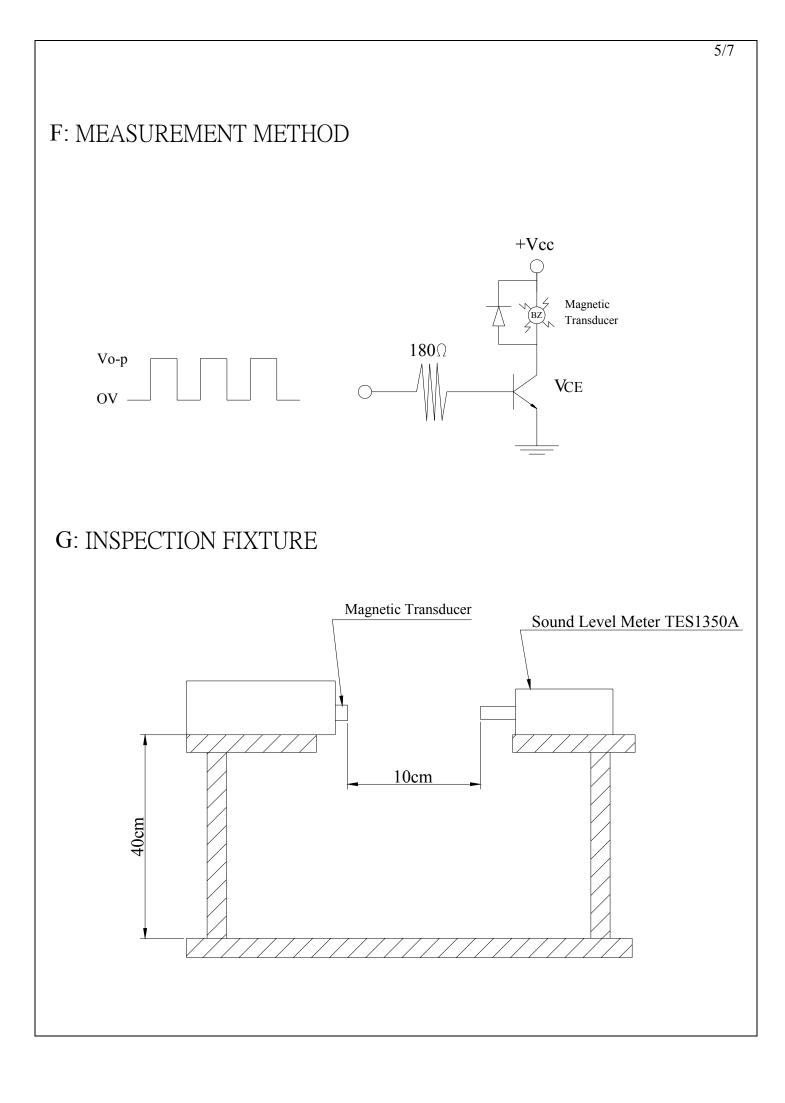
#### **E:MECHANICAL CHARACTERISTICS**

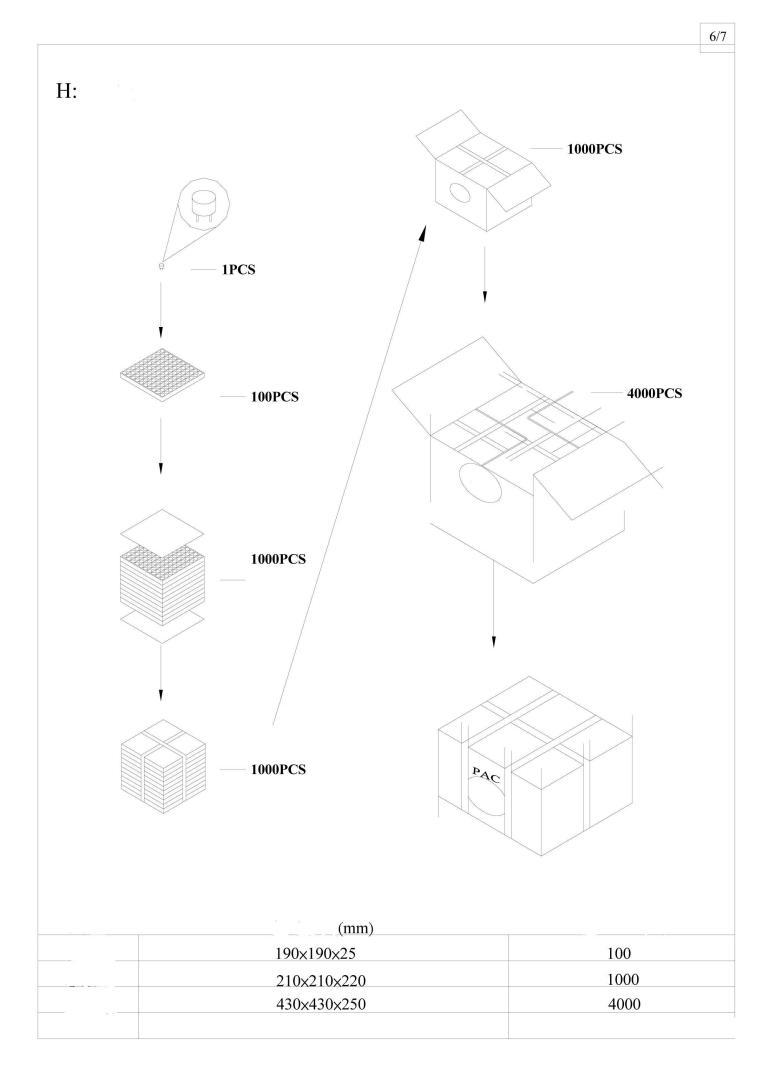
No	Item	Test condition	Evaluation standard	
1	Solder ability	Lead terminal are immersed in rosin for 5 seconds and then immersed in Solder bath of $+260\pm5^{\circ}$ C for $3\pm0.5$ second	95% Min. lead terminals shall be wet with solder	
2	Soldering Heat Resistance	Lead terminal are immersed in soldering bath of $+260\pm5^{\circ}$ C for $5\pm0.5$ Second.	No interference in	
3	Hand Soldering Heat Resistance	Lead terminal are soldering of +350±5°C, 2.0±0.5 Second.	operation	
4	Terminal Mechanical Strength	Apply the terminal with 9.8N(1kg) strength for 10±1 sec.	No damage and cutting off	
5	Vibration	The part shall be subjected to a vibration cycle of 10Hz to 55Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm(9.3G). The vibration test shall consist of 2 hours per axis in each three $axes(X \land Y \land Z)$ .	After the test the part shall meet specifications without any damage in appearance and performance except SPL. The SPL shall be	
6	Drop test	The part only shall be dropped from a height of 75cm onto a 40mm think wooden board 1 times.	in $\pm$ 10 dBA compared with initial one.	

### \* Wave Soldering profile of lead-free

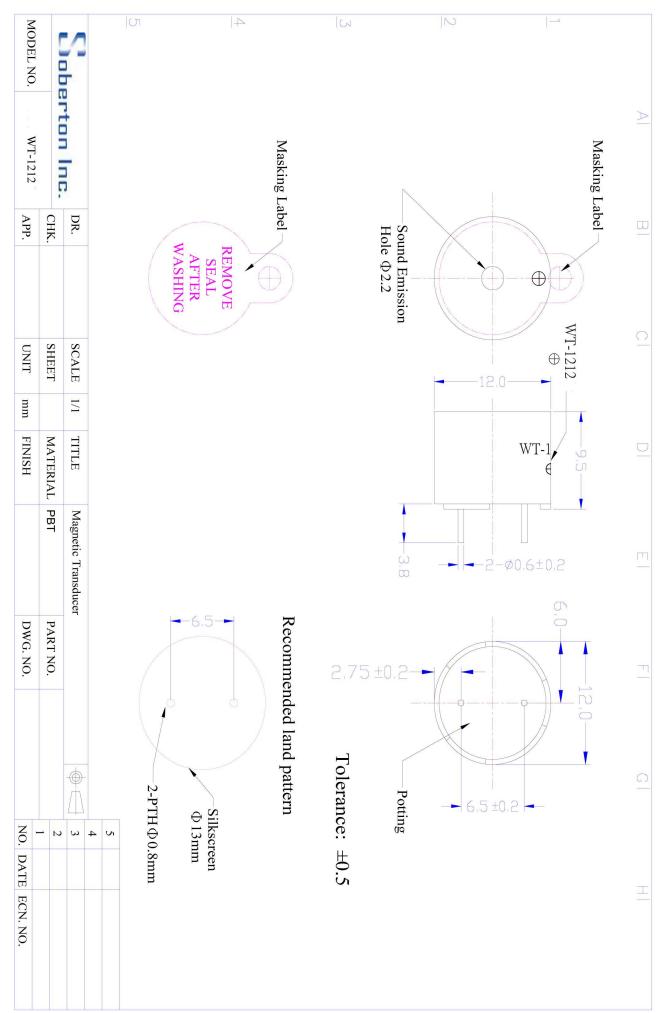


Recommendable wave soldering condition is as follows.
Note 1: It is requested that wave soldering should be executed after heat of product goes down to normal temperature.
Note 2: Peak wave temperature of 235°C ~ 250°C maximum of 10 sec. .





## I : DRAWING



7/7