

# SPECIFICATION FOR APPROVAL

**Customer :**

**Description :** Magnetic Transducer

**Soberton Part No. :** ST-04BH

**Date :** 2009-02-12

**Customer Model No. :**

<b>Date of Approval</b>	
<b>Authorization Signature</b>	



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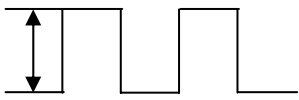
[Http://www.soberton.com](http://www.soberton.com) E-mail : [info@soberton.com](mailto:info@soberton.com)

<b>Approved</b>	<b>Checked</b>	<b>Design</b>
<b>Ryan</b> 2009/02/12	<b>Xu Wei</b> 2009/02/12	<b>Cao Zh Qiao</b> 2009/02/12

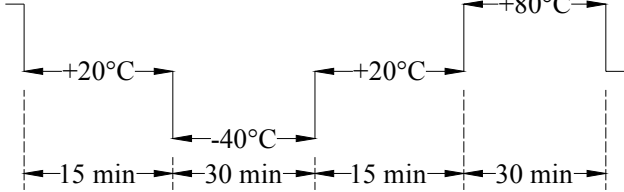
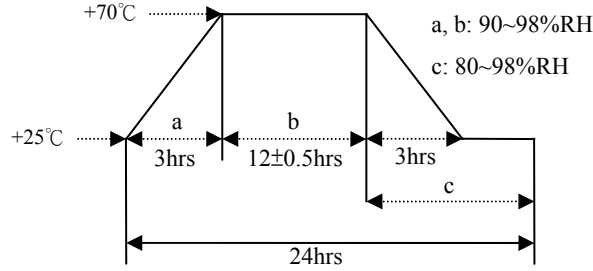
This specification applies magnetic buzzer, ST-04BH

## 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	3.6	
2	Operating Voltage	Vo-p	2.5 - 4.5	
3	Mean Current	mA	Max. 100	Applying rated voltage & rated frequency, square wave 1/2 duty
4	Coil Resistance	Ω	16 ± 3	
5	Sound Output	dBA	88/10cm	Distance at 10cm(A-weight free air), Applying rated voltage & rated frequency, square wave, 1/2 duty
6	Rated Frequency	Hz	2730±200	
7	Operating Temp	°C	-30-+70	
8	Storage Temp	°C	-40-+80	
9	Dimension	mm	8.5 × 8.5 × 4.0	See attached drawing.
10	Weight	gram	0.5	
11	Material		LCP (Black)	
12	Terminal		Pin type	See attached drawing
13	Environmental Protection Regulation		RoHS	
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 +80°C for 96 hours.	After the test the part shall meet specifications without any degradation in appearance and performance except SPL. after 4 hours at +25°C, The SPL shall be in ± 10 dBA compared with initial one.
2	Low temp. test	After being placed in a chamber at -40°C for 96 hours.	
3	Thermal shock	The part shall be subjected to 10 cycles. One cycle shall consist of; 	
4	Temp. / Humidity Cycle	The part shall be subjected to 10 cycle and consist of; 	

**D: RELIABILITY TEST**

No.	Item	Test condition	Evaluation standard
1	Operating life test	<p>□ Applying rated voltage, rated frequency, square wave, 1/2 duty cycle :</p> <p>Ordinary temperature The part shall be subjected to 96 hours at room temperature.</p>	After the test the part shall meet specifications without any degradation in appearance and performance except SPL. after 4 hours at +25°C, The SPL shall be in ± 10 dBA compared with initial one.

**TEST CONDITION.**

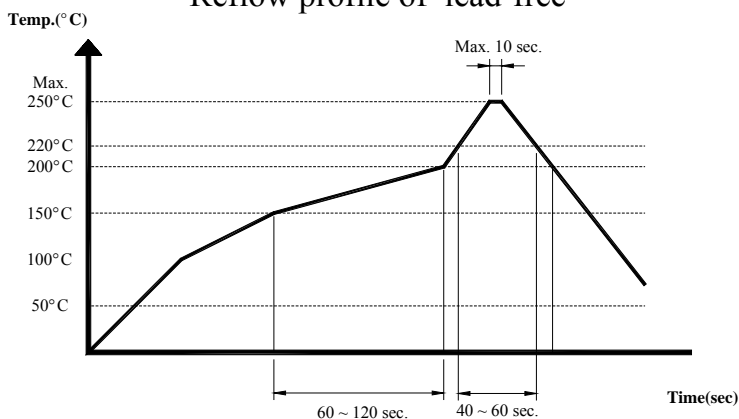
Standard Test Condition : a)Temperature: +5~+35°C b)Humidity:45~85% c)Pressure: 860~1060mbar

Judgment Test Condition :a)Temperature:+25±2°C b)Humidity:60~70% c)Pressure: 860~1060mbar

**E:MECHANICAL CHARACTERISTICS**

No	Item	Test condition	Evaluation standard
1	Solderability	Lead terminal are immersed in rosin for 5 seconds and then immersed in Solder bath of +260±5°C for 3±0.5 second	90% min. lead terminals shall be wet with solder
2	Soldering Heat Resistance	Lead terminal are immersed in soldering bath of +260±5°C for 3±0.5 Second.	
3	Iron Soldering Heat Resistance	Lead terminal are soldering of +350±5°C, 2.5±0.5 Second.	No interference in 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 to 10Hz 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,Y,Z),Total 6 hours.	After the test the part shall meet specifications without any damage in appearance and performance except SPL. The SPL shall be in ± 10 dBA compared with initial one.
6	Drop test	The part only shall be dropped from a height of 75cm onto a wooden board 1 times.	

**\* Reflow profile of lead-free**

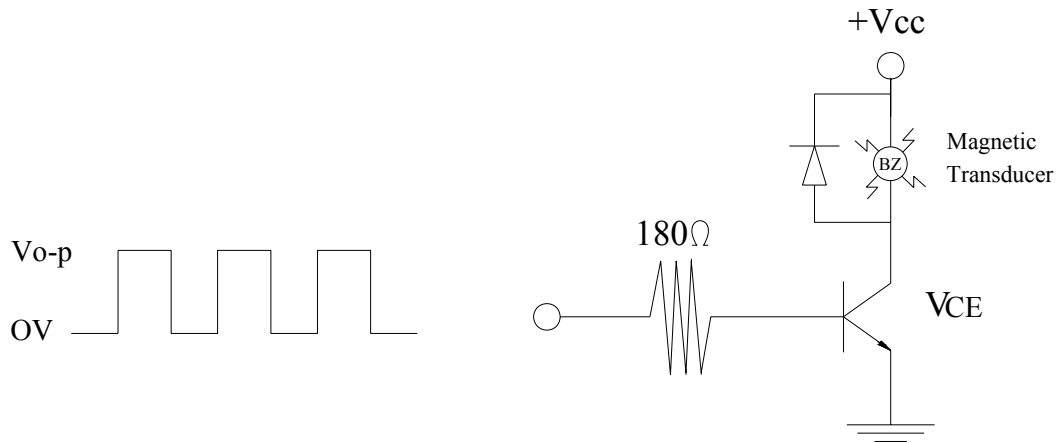


Recommendable reflow soldering condition is as follows.

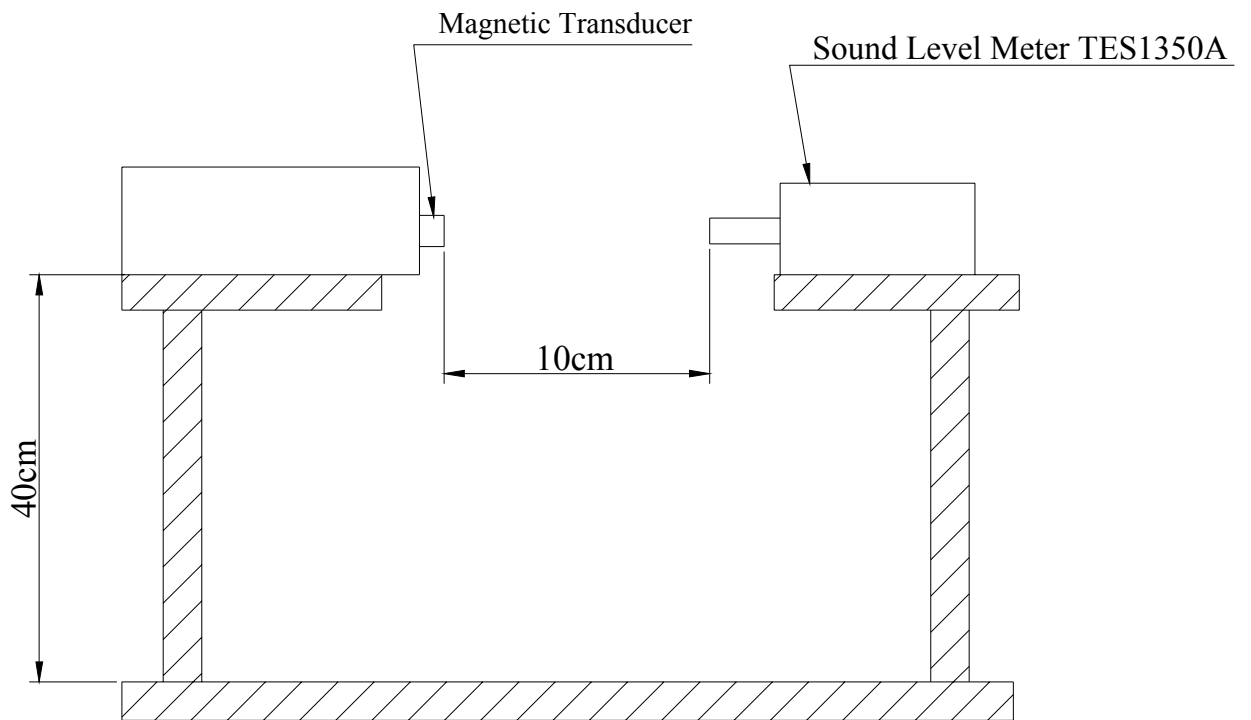
Note 1: It is requested that reflow soldering should be executed after heat of product goes down to normal temperature.

Note 2: Peak reflow temperature of 250°C Max.10 sec., with a maximum duration of 40-60 sec. between 220°C and 250°C

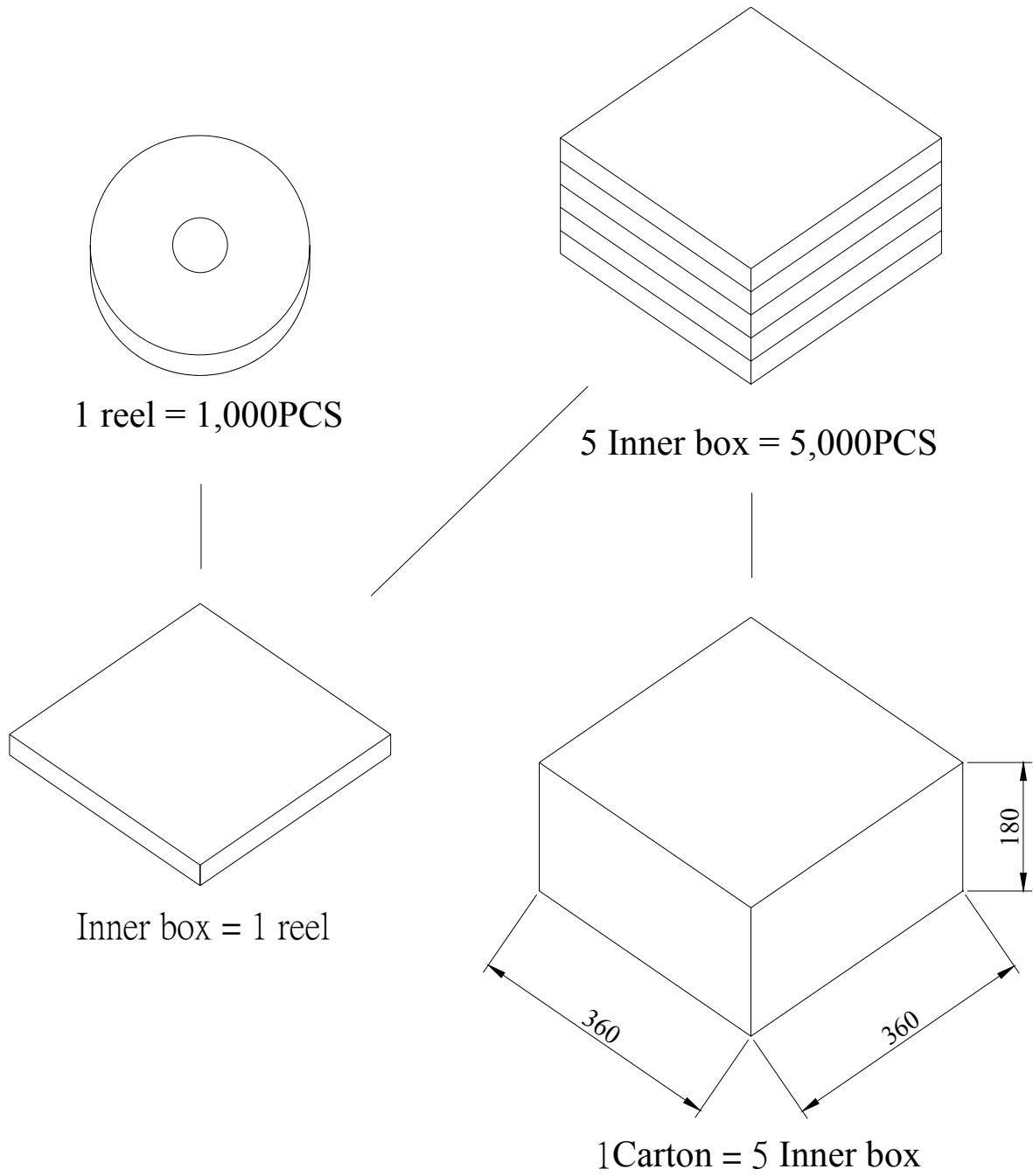
## F: MEASUREMENT METHOD



## G: INSPECTION FIXTURE



H: PACKING



Packing	Dimension (mm)	Quantity (piece)
1 Reel	$\Phi 330 * H21$	1,000 pcs
1 Inner box	336 * 336 * 29	1000 pcs
1 Carton	360 * 360 * 180	5,000 pcs

I : DRAWING

