

SPECIFICATION FOR APPROVAL

Customer :

Description : Magnetic Transducer

Soberton Part No. : GT-11P

Date : 2009-12-29

Customer Model No. :

Date of Approval	
Authorization Signature	

Soberton Inc.

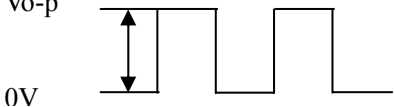
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Approved	Checked	Design
Ryan 2009/12/29	Wang Wei Rong 2009/12/29	Xu Hong Wei 2009/12/29

This specification applies magnetic transducer, GT-11P

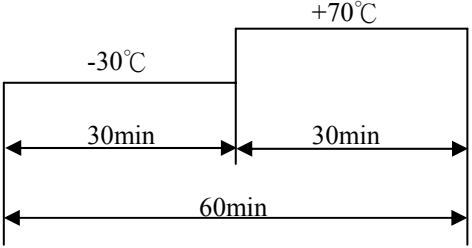
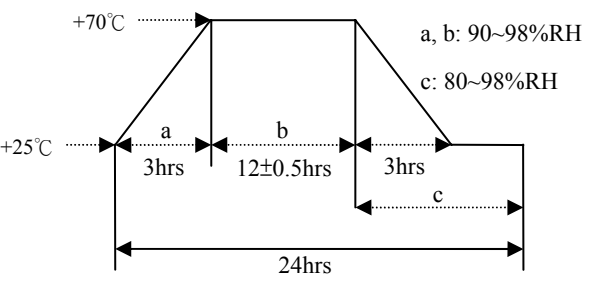
B:SPECIFICATION

■ Test condition: TEMP=+25±2 °C Related humidity=65±5% Air pressure:860-1060mbar

NO.	Item	Unit	Specification	Condition
1	Rated Voltage	Vo-p	1.5	
2	Operating Voltage	Vo-p	1.0 - 3.0	
3	Mean Current	mA	Max. 35	Applying rated voltage & rated frequency, square wave 1/2 duty
4	Coil Resistance	Ω	16 ± 4.5	
5	Sound Output	dBA	85 at 10cm	Distance at 10cm(A-weight free air), Applying rated voltage & rated frequency, square wave, 1/2 duty
6	Rated Frequency	Hz	2048	
7	Operating Temp	°C	-20 ~ +60	
8	Storage Temp	°C	-30 ~ +70	
9	Dimension	mm	Φ 12.0 × H 8.5	See attached drawing.
10	Weight	gram	1.6	Magnetic transducer without wire.
11	Material		PPO	
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), Humidity 40%

C: ENVIRONMENT TEST

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No.	Item	Test condition	Evaluation standard
1	High temp. test	After being placed in a chamber at +70°C for 96 hours.	After the test the part shall meet specifications without any degradation in appearance and performance except SPL. after 2 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 -30°C for 96 hours.	
3	Thermal shock	<p>The part shall be subjected to 5 cycles. One cycle shall consist of;</p> 	
4	Temp. / Humidity Cycle	<p>The part shall be subjected to 5 cycle and consist of;</p> 	

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 2 hours at +25°C, The SPL shall be in ± 10 dBA compared with initial one.

TEST CONDITION.

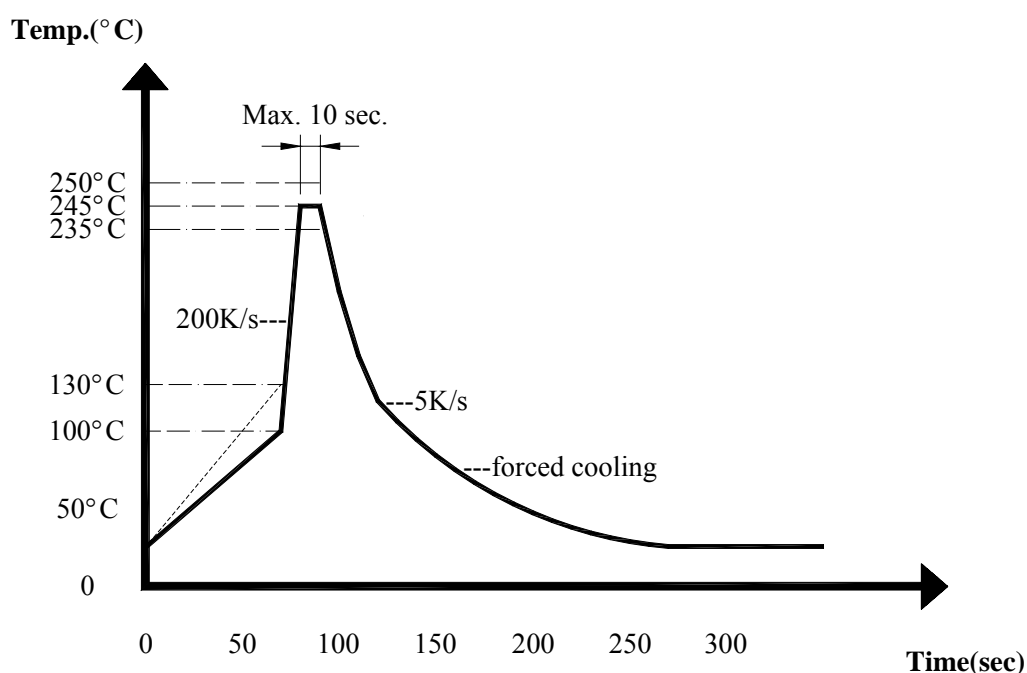
Standard Test Condition : a)Temperature: +5~+35℃ b)Humidity:45~85% c)Pressure: 860~1060mbar

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

E:MECHANICAL CHARACTERISTICS

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No	Item	Test condition	Evaluation standard
1	Terminal Mechanical Strength	Apply the terminal with 9.8N(1kg) strength for 10±1 sec.	No damage and cutting off
2	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、Y、Z).	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.
3	Drop test	The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 1 times.	

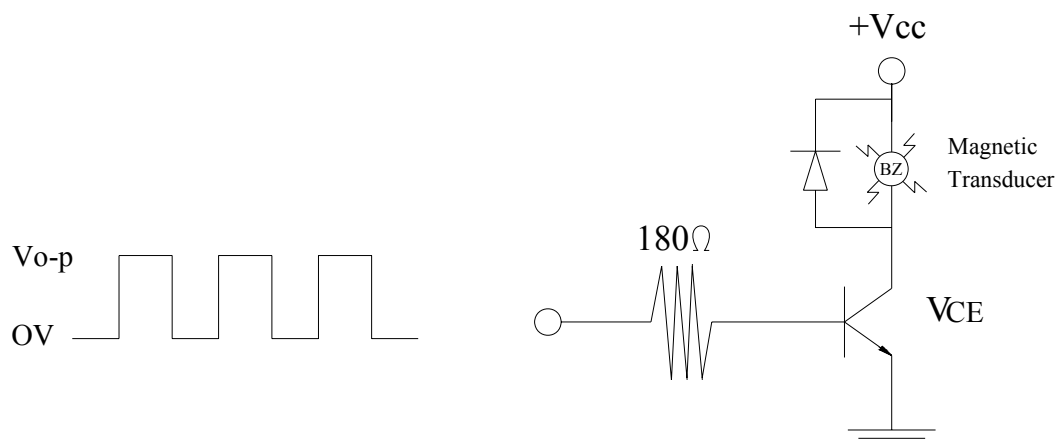
*** Wave Soldering profile of lead-free**

Recommendable wave soldering condition is as follows.

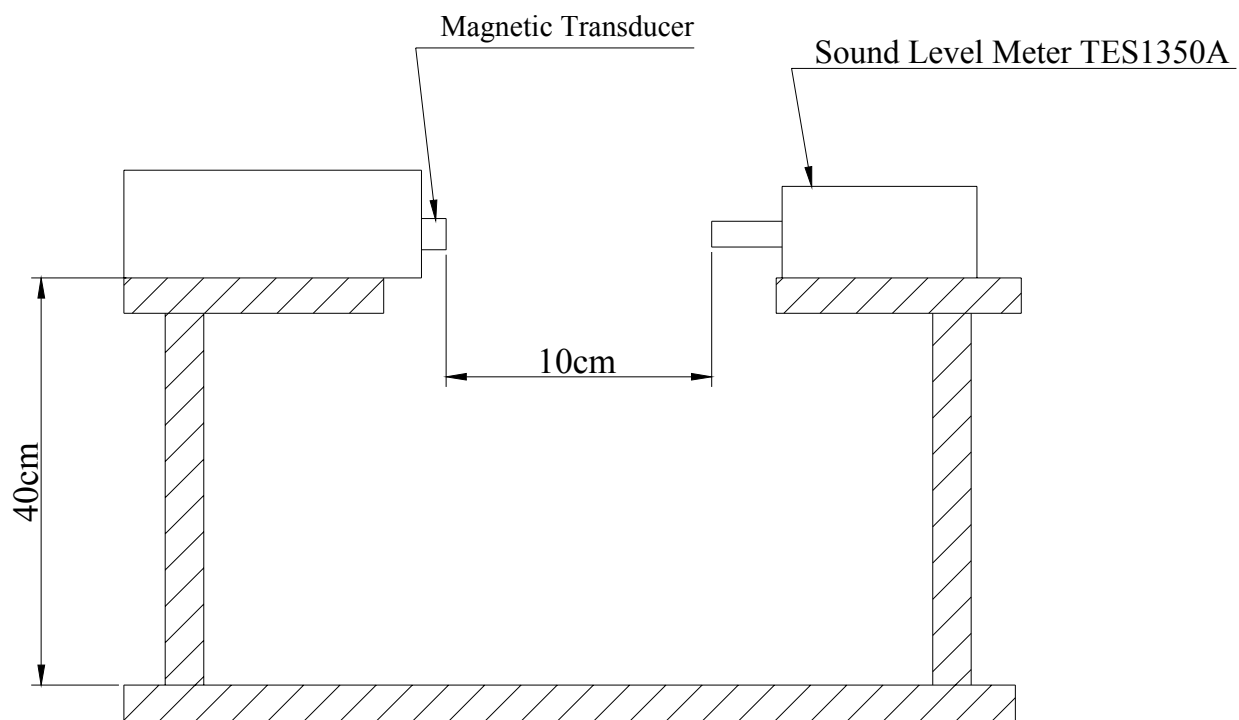
Note 1: It is requested that wave soldering should be executed after heat of product goes down to normal temperature.

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

F: MEASUREMENT METHOD

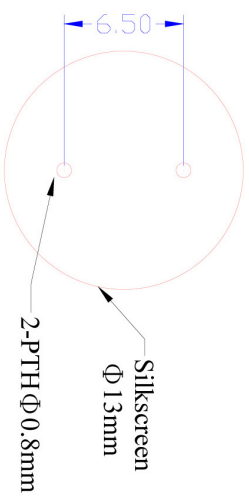


G: INSPECTION FIXTURE



I : DRAWING

Recommended land pattern



Tolerance: ± 0.5
Unit:mm

The technical drawing illustrates a magnetic transducer with the following specifications:

- Top View:** A circular component with a diameter of $\phi 12$. It features a central "sound emission hole" with a diameter of $\phi 2.3$. The model number "GT-11P" is printed on the top surface.
- Side View:** Shows the component's profile with a total height of 8.50. The top flange has a thickness of 3.3, and the base has a thickness of 2.0. The base diameter is $\phi 6.50$.
- Bottom View:** Displays the internal structure, including a central circular feature and four radial slots.
- Recommended Land Pattern:** A circular pattern for PCB mounting with a diameter of 6.50. It includes two through-holes (PTH) with a diameter of $\phi 0.8$ mm, spaced 6.50 apart. The silk screen diameter is $\phi 1.3$ mm.

Dimensions:

- Top View: $\phi 12$ (outer diameter), $\phi 2.3$ (sound emission hole), 8.50 (height), 3.3 (flange thickness), 2.0 (base thickness).
- Side View: 8.50 (total height), 3.3 (flange thickness), 2.0 (base thickness), $\phi 6.50$ (base diameter).
- Bottom View: $\phi 6.50$ (base diameter).
- Land Pattern: 6.50 (diameter), $\phi 0.8$ mm (PTH diameter), 6.50 (PTH spacing), $\phi 1.3$ mm (silk screen diameter).