# OBO PRO.2 INC. 文件發行章

# 啓 弘 股 份 有 限 公 司

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# Specification for Approval

NO.:

Part Name :	Magnetic Transducer
Model No. :	OBO-1001R-A2
Date :	JAN.14,2002

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Please kindly make approval of our samples, And return this form by fax or airmail, Thanks for your kind attention and co-operation (前對我們公司權品給予承認,承認後加護承認申以傳真或認識方式回覆,繼續責公司的支持契合作)

Customer Name :

Customer Part No. :

Designed By	Checked By	Approval By

## Model No: OBO-1001R-A2

### 1.General Requirements

	Items	Spec.	Conditions
1.1	Rated Voltage	1.5 Vo-p	Vo-p Vcc
1.2	Operating Voltage	1~2Vo−p	
1.3	Resonant Frequency	2730Hz	Square wave 1/2 Duty
1.4	Sound Pressure Level at 10cm	min. 85dB	Standard State, Standard Drive circuit, Rated Voltage, Distance
1.5	Average Current Consumption	max. 80mA	at 0.1m(A—weight) 2730Hz Squarewave 1/2 Duty.
1.6	Coil Resistance	5.5±2 <b>Ω</b>	
1.7	Operating Temp. Range	-20°C <b>~</b> +60°C	SPL≥80dB at "1.4"
1.8	Storage Temp. Range	-40°C~+85°C	
1.9	Housing Material	PBT .	•
1.10	Weight	1g	

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#### 2.Standard test Conditions

2.1 Standard State Ordinary Temperature

15°C to 35°C

Ordinary Humidity

25% to 85%

Ordinary air pressure

860 to 1060hPa

In case of doubtful judgment, the test is re-performed under Basic State.

2.2 Basic State

Temperature

20±2℃

Humidity

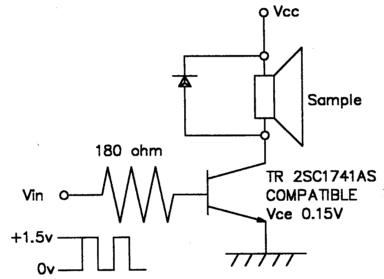
60% to 70%

Ordinary air pressure

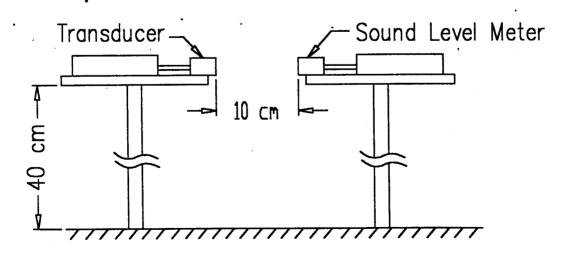
860 to 1060hPa

#### 3. Test method

#### 3.1 Standard Drive Circuit



#### 3.2 Standard Test Fixture

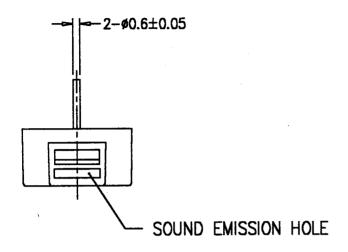


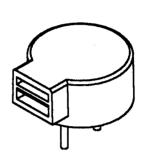
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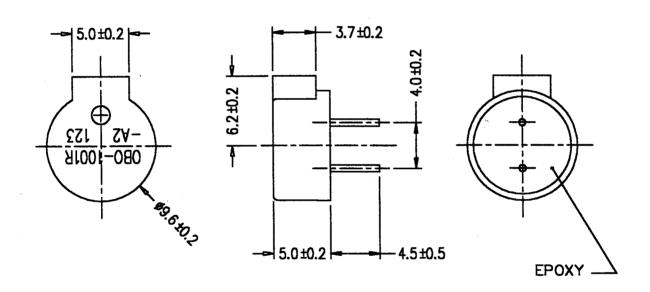
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### 4.Mechanical Layout and Dimensions

UNIT: mm







Note: Meaning of Stamp Mark

123: Production Lot No.

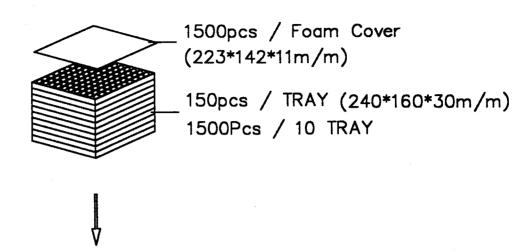
1 : Year 2001 (last 1 figures of the year)

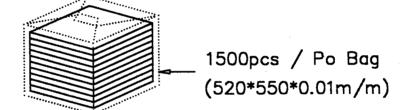
23 : week (01 ~ 55) 1001R-A2 : Model No.

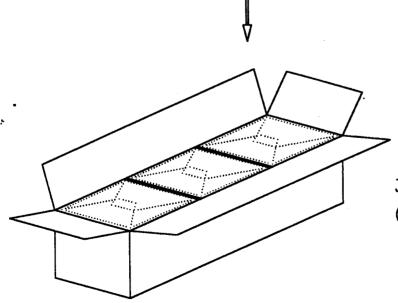
 $\oplus$ : Polarity indentification mark

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### PACKING LIST OF OBO-1001R-A2







3 Po Bag(4500pcs)/CARTON (500\*267\*273m/m)

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### 6.Reliability Test

No	!tems	Test Conditions	Evaluation Criteria
1	High Temp. Storage	The part shall be capable of withstanding a storage temperature of +85°C for 240 hours.	After the test the part shall meet specifications without any degradation in appearance and
2	Low Temp. Storage	The part shall be capable of withstanding a storage temperature of −40°C for 240 hours.	performance except SPL. SPL shall be 80dB or more.
3	Thermal Shock	The part shall be subjected to 50 cycle. One cycle shall consist of:  +85°C  -40°C  -30MIN  30MIN  Transfer Time: 10 minutes	
4	Humidity Test	The part shall be subjected to +60°C, 90% RH for 240 hours, and expose to room temperature for 6 hours.	
5	Vibration	10 - 55 - 10Hz, Sinewave.  Sweep 15 min.  X,Y,Z 3 Direction 2 hours each,  Total 6 hours.	
6	Free Drop	The part only shall be dropped from a height of 150cm onto the 4cm thick hardwood board 10 times in any directions.	

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No	Items	Test Conditions	Evaluation Criteria
7	Ordinary Temp. Operating Test	The part shall be subjected to 240 hours at 25±10℃. Input 1.5Vp—p Squarewave 1/2duty 2730Hz	
8	High Temp. Operating Test	The part shall be subjected to 240 hours at +60°C. Input 1.5Vp-p Squarewave 1/2duty 2730Hz	
9	Low Temp. Operating Test	The part shall be subjected to 240 hours at −20°C. Input 1.5Vp−p Squarewave 1/2duty 2730Hz	

#### Notes

As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign material enter it.

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