

OBO Pro.2®	SPECIFICATIONS	MODEL NO. OBO-1003R-A2
	PART NAME Electromagnetic Transducer	SHEET 1 OF 7

ALTERNATION HISTORY

Marking	Date	ECN NO.	REV.	Description	Page	PREPARE BY	APPROVE BY
※1	JUL,18,05	DG0507005	B	New Document	7	NSG	徐俊達
※2	MAR,01'07	0601003	C	Conformity RoHS Directive (2002/95/EC) Requests.	7	謝淑雅	陳建合

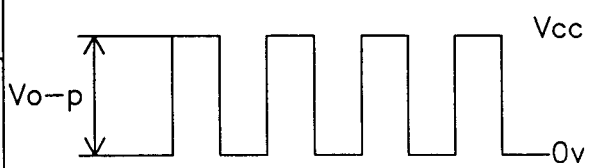
REV.	DATE	PREPARED BY	CHECKED BY	APPROVED BY
C	MAR,01,2007	MIA	陳建合	徐俊達

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Features : Conformity RoHS Directive (2002/95/EC) Requests. ※2

1、General Specifications :

Items	Spec.	Conditions
1.1 Rated Voltage	3.0 Vo-p	 <p>Square wave 1/2 Duty</p>
1.2 Operating Voltage	2-4 Vo-p	
1.3 Resonant Frequency	2730Hz	
1.4 Sound Pressure Level at 10cm	min. 85dB	Standard State, Standard Drive circuit, Rated Voltage, Distance at 0.1m(A-Weight) 2730Hz Squarewave 1/2 Duty.
1.5 Average Current Consumption	max. 70mA	
1.6 Coil Resistance	25±3Ω	
1.7 Operating Temp. Range	-20°C~ +60°C	SPL ≥ 80dB at "1.4"
1.8 Storage Temp. Range	-40°C~ +85°C	
1.9 Housing Material ※2	Noryl	
1.10 Weight	1g	

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2、Standard test Conditions

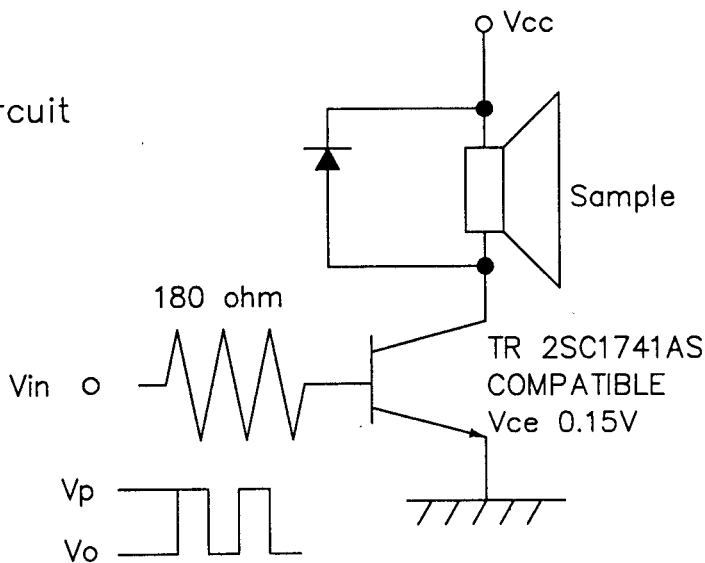
2.1 Standard State	Ordinary Temperature	15°C to 35°C
	Ordinary Humidity	25% to 85%
	Ordinary air pressure	860 to 1060hPa

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

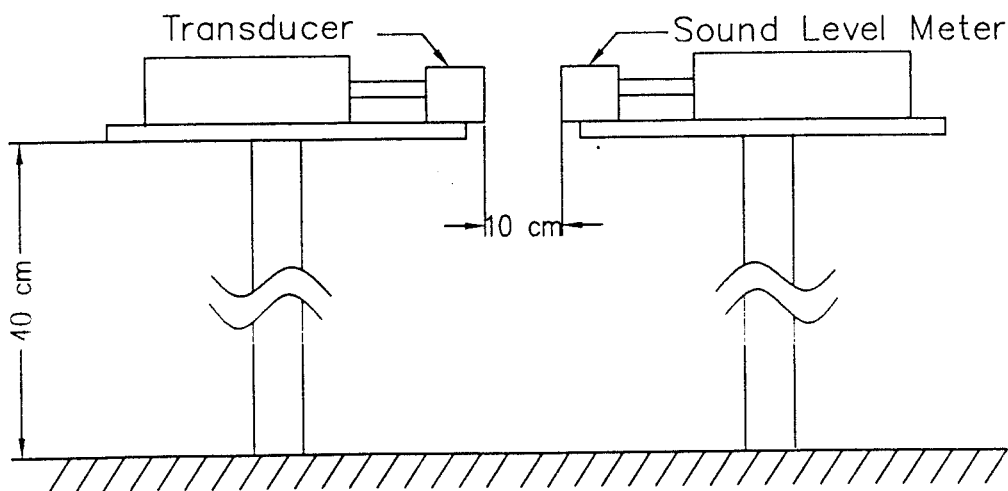
2.2 Basic State	Temperature	20±2°C
	Humidity	60% to 70%
	Ordinary air pressure	860 to 1060hPa

3、Test method

3.1 Standard Drive Circuit

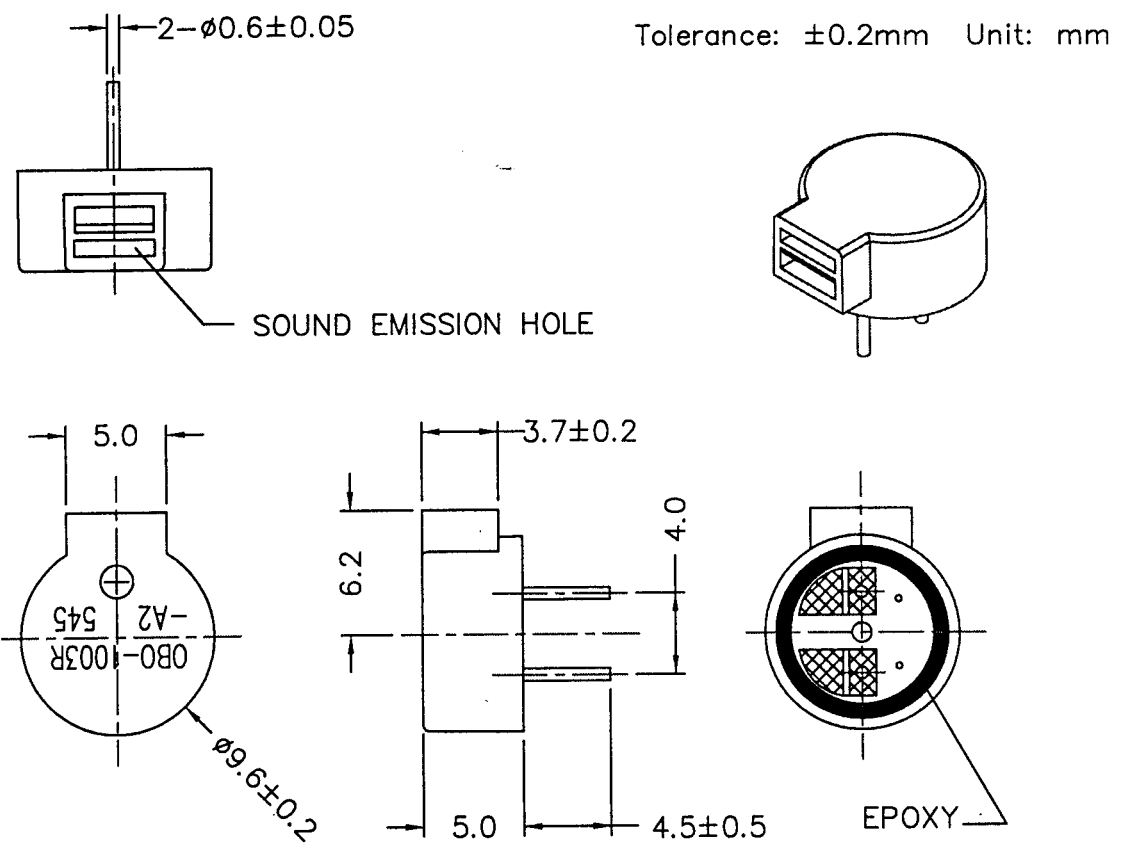


3.2 Standard Test Fixture



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4、Mechanical Layout and Dimensions



Note : Meaning of Stamp Mark
 545: Production Lot No.
 5 : Year 2005(last 5 figures of the year)
 45 : week (01 ~ 55)
 1003R-A2 : Model No.
 ⊕ : Polarity identification mark

5、Soldering Condition ※2

5.1 Hand Soldering

Iron Tip Temperature	Soldering time
+ 380°C Max.	Duration 3 seconds Max.

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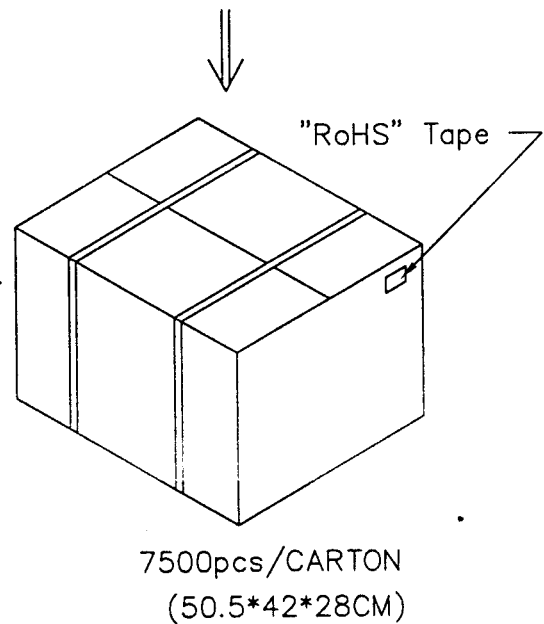
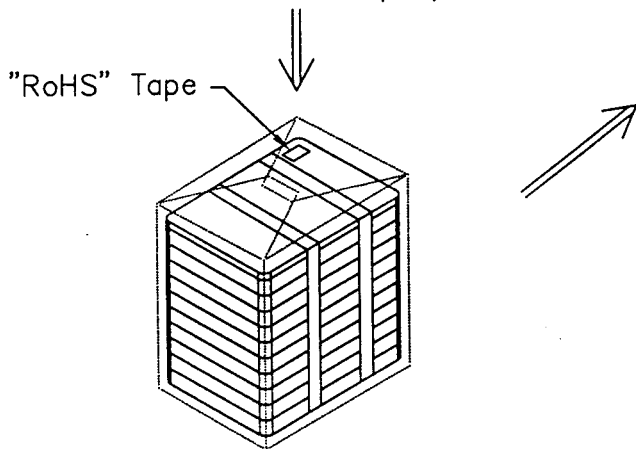
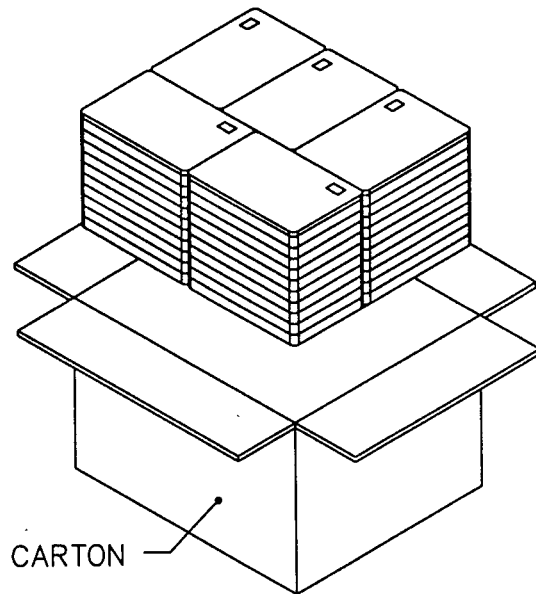
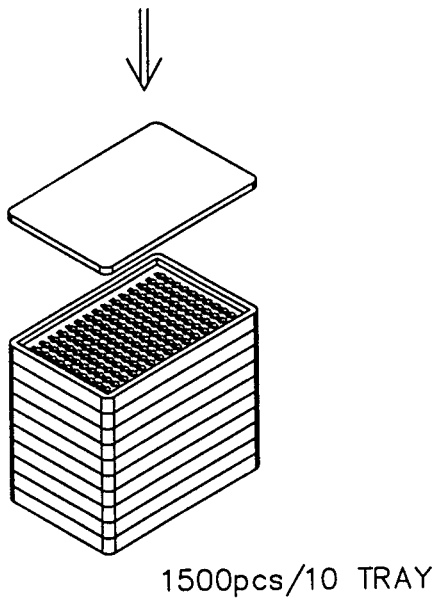
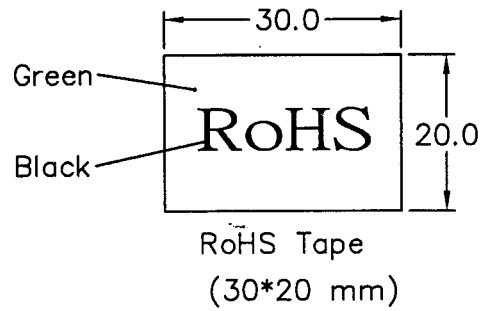
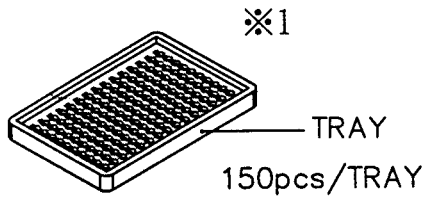
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6、 Packing Information : ※2



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7 · Reliability test ※2

No	Items	Test Conditions	Evaluation Criteria
1	High Temp. Storage	Storage in $+85\pm 2^{\circ}\text{C}$ test box for 240 hours, then expose to the room temperature for 2 hours without applying power.	After test The value of frequency /current/SPL should be meet specifications
2	Low Temp. Storage	Storage in $-40\pm 2^{\circ}\text{C}$ test box for 240 hours, then expose to the room temperature for 2 hours without applying power.	
3	Temperature cycle test	Make this test for 5 cycle without applying power, then expose to the room temperature for 2 hours. 	
4	Humidity test	Storage in $+40\pm 2^{\circ}\text{C}$ 90-95%RH test box for 48 hours, then expose to the room temperature for 2 hours without applying power.	
5	Vibration test	10 - 100 - 10Hz, Sinewave, Sweep 15 min. X,Y,Z 3 Direction 2 hours each, Total 6 hours.	
6	Drop test	Drop from the height of 100cm to the surface of 10mm thick woodenboard. three directions(x,y,z).	

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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°C. Input 3.0Vp-p Squarewave 1/2duty 2730Hz	
8	High Temp. Operating Test	The part shall be subjected to 240 hours at +60°C. Input 3.0Vp-p Squarewave 1/2duty 2730Hz	
9	Low Temp. Operating Test	The part shall be subjected to 240 hours at -20°C. Input 3.0Vp-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.