文件發行章

OBO Pro-2	SPECIFICATIONS	MODEL NO. OBO-11240PB
	PART NAME Piezoelectric Buzzer	SHEET 1 OF 8

ALTERNATION HISTORY

Marking	Date	ECN NO.	REV.	Description	Page	PREPARE BY	APPROVE BY
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※1	MAY.31'2005	0505010	E	Conformity RoHS Directive (2002/95/EC) Requests.	8		

REV.	DATE	PREPARED BY	CHECKED BY	APPROVED BY
E	SEP,14,2005			

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OBO Pro-2	SPECIFICATIONS	MODEL NO. OBO-11240PB
	PART NAME Piezoelectric Buzzer	SHEET 2 OF 8

MODEL NO : OBO-11240PB

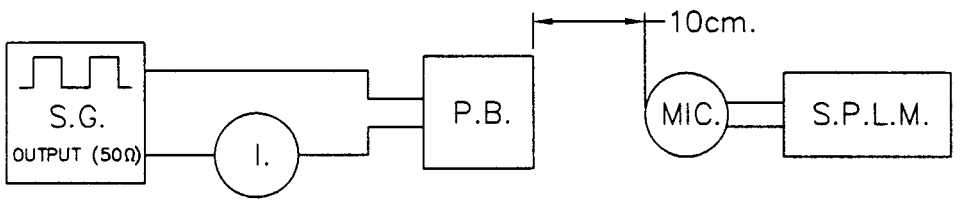
Features : External drive & lead pin type
Conformity RoHS Directive (2002/95/EC) Requests. (※1)

1、General Specifications :

	Items	Specification
1.1	Sound Pressure Level	67dB min. at 4.0KHz/5Vp-p Square Wave/10cm
1.2	Capacitance	9,500pF ± 30% at 120Hz
1.3	Current Consumption	2mA max. at 4.4KHz/5Vp-p Square Wave
1.4	Allowable Input Voltage	15Vp-p max.
1.5	Case Material	PBT
1.6	Lead Pin Material	Bronze
1.7	Operating Temp. Range	-20°C to +70°C
1.8	Storage Temp. Range	-40°C to +85°C
1.9	Weight	0.4 gms
1.10	Frequency Response	As Per Fig.1

2、Test Method :

2.1 Standard Test Diagram



S.G. : GFG-8016G Function Generator or Equivalent
S.P.L.M. : Sound Pressure Level Meter IEC651 TYPE2
I. : GDM-8145 Multimeter or Equivalent
P.B. : Piezoelectric Buzzer

Note: Please pay attention never to be applied DC voltage to piezo sounder

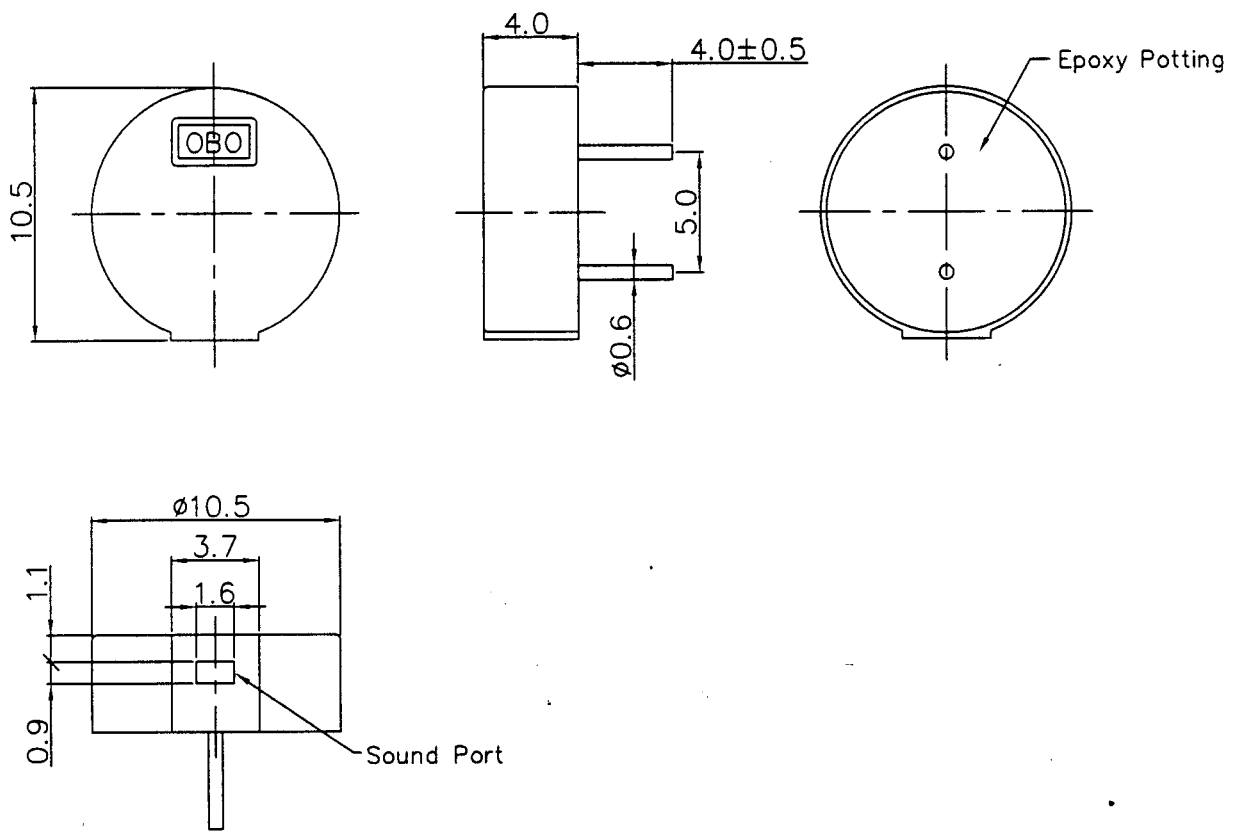
2.2 Standard Test Condition

Part shall be measured under a condition (Temperature : +5 to +35°C, Humidity : 45% to 85%R.H.) unless the standard condition.(Temperature : +25±3°C, Humidity : 60±10%R.H.) is regulated to measure.

3、Mechanical Layout and Dimensions :

3.1 Dimensions

Tolerance: ±0.3 mm Unit: mm



(※1)

3.2 Environment-related substances to be controlled

3.2.1 Piezoelectric Ceramic Disc.

RoHs Annex :

Application of lead, mercury, cadmium and hexavalent chromium,which are exempted from the requirement of article 4(1).

* Lead in electronic ceramic parts.(e.g. piezoelectronic devices).

3.2.2 Ni-Alloy Plate.

RoHs Annex :

Lead in an alloying element in steel containing up to 0.35% lead by weight, aluminium containing up to 0.4% lead by weight and as a copper alloy containing up to 4.0% lead by weight.

(※1)

4、Soldering Condition :

4.1 Wave Soldering

Peak temperature	Dipping time	Soldering
+ 260°C	5 seconds	1 time

4.2 Hand Soldering

Iron Tip Temperature	Soldering time
+ 350°C , Duration	3 seconds Max.

4.3 Heat Resistance

Heat Resistance	Soldering time
+ 380°C , Duration	3 seconds Max.

5、Reliability Test Conditions :

5.1 Mechanical Sequency

	Test Items	Test Conditions	Performance Requirements
1	Vibration	10 – 55 –10Hz, Sinewave sweep 15 minutes. X,Y,Z 3 direction 2 hours each, Total 6 hours	The measured values shall meet Remarks 1,2
2	Resistance to Soldering Heat (※1)	Lead terminal are immersed up to 1.5m/m from sounder's body in solder bath of 350±5°C for 3±0.5 seconds.or 260±5°C for 10±0.5 seconds.	
3	Free Drop Test	Free fall from a hight of 100 cm. Onto the 10 m/m thick hardwood board, 9 times, any directions	
4	Solderability (※1)	Lead terminals are immered in rosin for 5 seccods and then immered in solder bath of 235±5°C for 3±0.5 seconds.	90% min. lead terminals shall be wet with solder. (Except the edge of terminal.)
5	Terminal Strength Pushing	The force 10 seconds of 1.0Kg is applied to each terminal in axial direction.	No visible damage and cutting off.

5.2 Environmental Sequence

	Test Items	Test Conditions	Performance Requirements
1	Humidity Test	+70±2°C, 90 ~ 95%RH,96 hrs.	The measured values shall meet Remarks 1,2
2	High Temp. Sotorage	+85±2°C,96 hrs.	
3	Low Temp. Sotorage	−40±2°C,96 hrs.	
4	Thermal Shock	−40±2°C(30min.) → +85±2°C (30min.) 50 cycle. Transfer Time : 10 minutes	

5.3 Operating Life Sequence

	Test Items	Test Conditions	Performance Requirements
1	Ordinary Temp. Operating Test	Continuous sound generation for 96 hrs. at 4.0KHz/5.0Vp-p and +25±10°C	The measured values shall meet Remarks 1,2
2	High Temp. Operating Test	Continuous sound generation for 96 hrs. at 4.0KHz/5.0Vp-p and +70±2°C	
3	Low Temp. Operating Test	Continuous sound generation for 96 hrs. at 4.0KHz/5.0Vp-p and −20±2°C	

REMARKS:

1. Sounder shall be measured after being placed in natural condition for 4 hours.
2. After the test the part shall meet specifications without any degradation in appearance and performance except SPL : Initial±10dB and Capacitance : Initial±20%.

6、Packing Information :

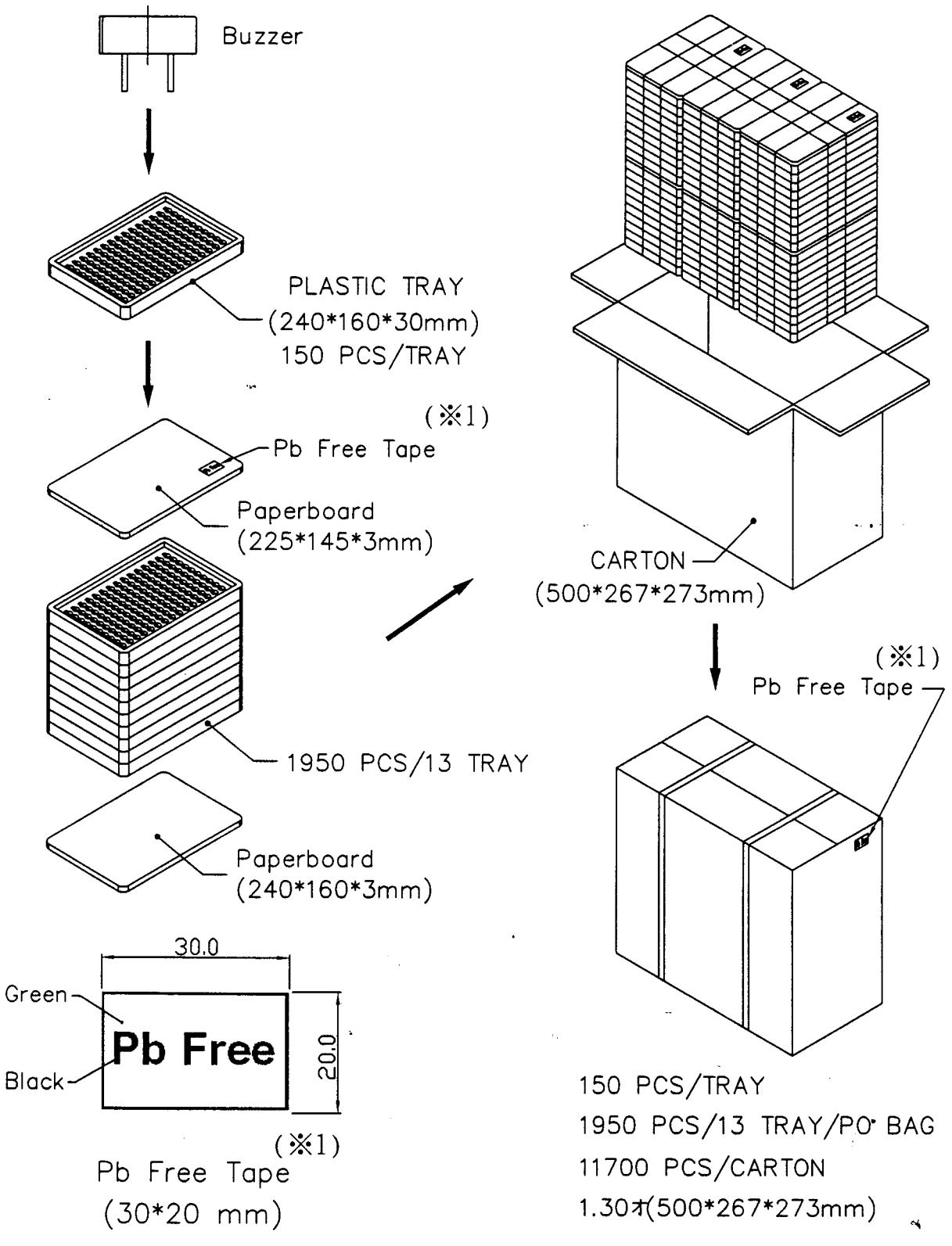
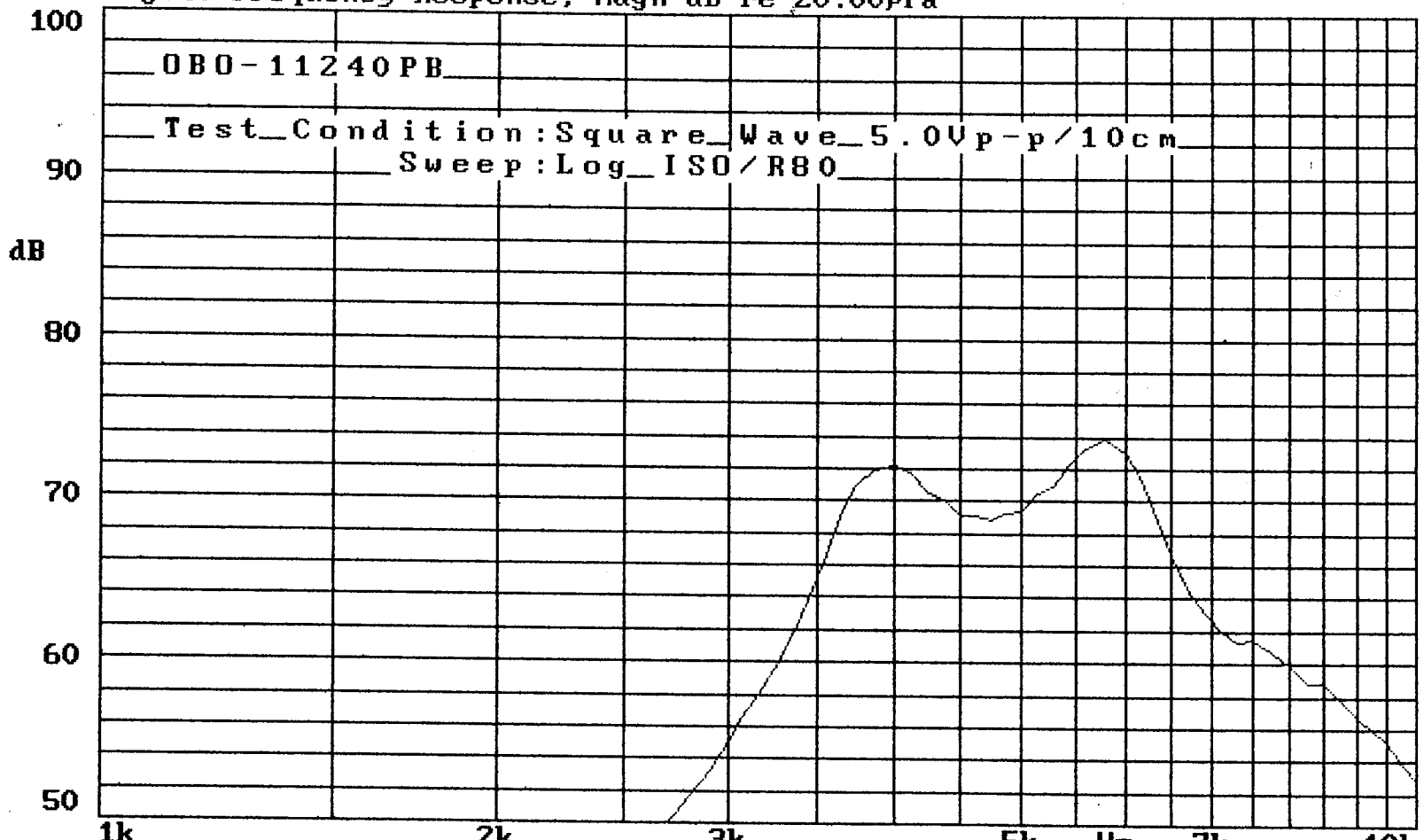


Fig.1: Frequency Response, Magn dB re 20.00µPa



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