

OBO Pro.2®	SPECIFICATIONS	MODEL NO. OBO-11250PA
	PART NAME PIEZOELECTRIC BUZZER	SHEET 1 OF 8

ALTERNATION HISTORY

Marking	Date	ECN NO.	REV.	Description	Page	PREPARE BY	APPROVE BY
※1	JAN,15'07	0701003	B	Conformity RoHS Directive (2002/95/EC) Requests.	8	謝淑雅	葉可政

REV.	DATE	PREPARED BY	CHECKED BY	APPROVED BY
B	JAN,15,2007	MIA	葉可政 2/2/07	葉可政 2/2/07

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MODEL NO : OBO-11250PA

Features : External drive & Lead Pin Type.

Wave Solder And Wash Not Allowed.

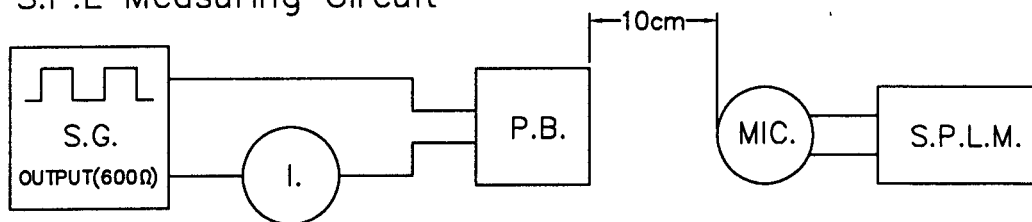
Conformity RoHS Directive (2002/95/EC) Requests. ※1

1 · General Specifications :

Items	Spec.
Sound Pressure Level	80dB Min. at 5.0KHz/9.0Vp-p Square Wave/10cm.
Capacitance	9,500pF ± 30% at 120Hz
Current Consumption	3mA Max. at 5.0KHz/9.0Vp-p Square Wave
Allowable Input Voltage	15Vp-p Max.
Case Material	PBT
Lead Pin Material	Bronze
Operating Temp. Range	-20°C to +70°C
Storage Temp. Range	-40°C to +85°C
Weight	0.4 grams

2 · Test Method :

2.1 S.P.L Measuring Circuit



- S.G. :GAG-808G Audio Ggenerator or Equivalent
- S.P.L.M. :Sound Pressure Level Mèter 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.

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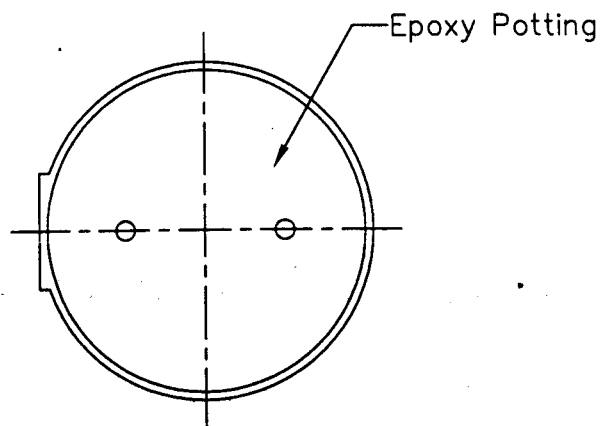
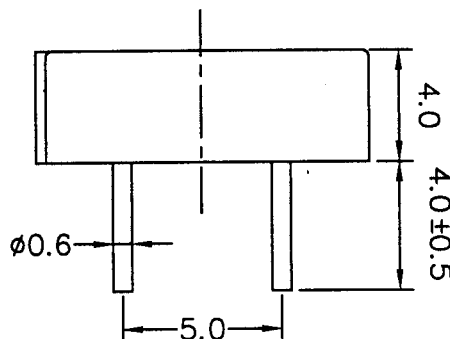
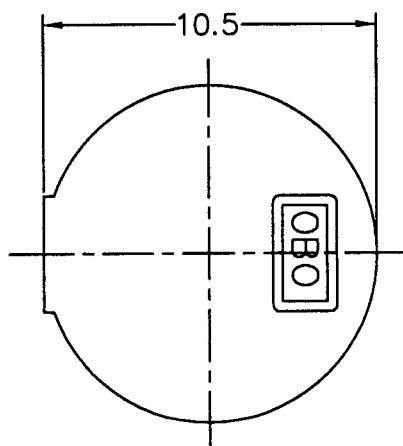
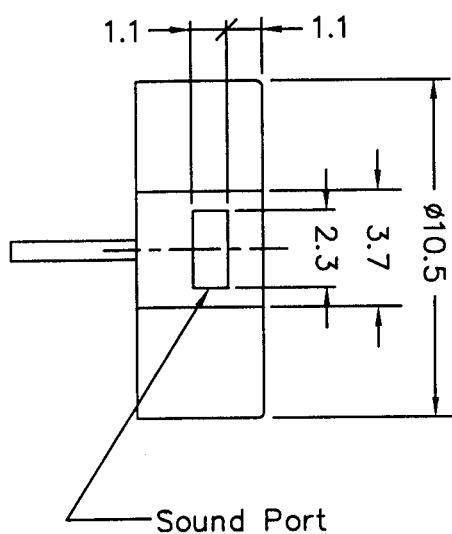
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3、Mechanical Layout & Dimensions :

3.1 Dimensions

Unit : mm Tolerance : ± 0.3



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3.2 Environment-related substances to be controlled ※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).

4、Soldering Condition : ※1

4.1 Wave Soldering

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

4.2 Hand Soldering

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

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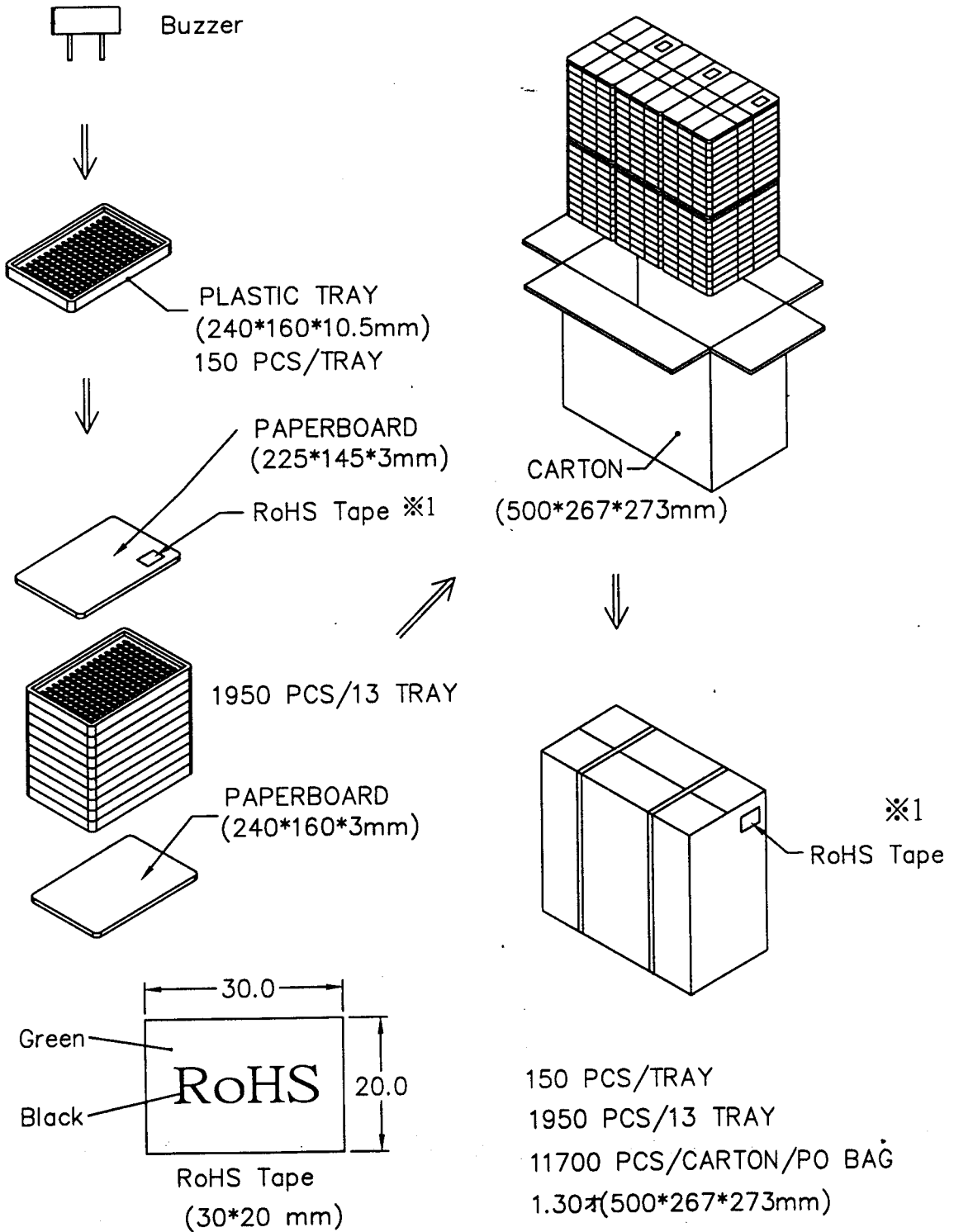
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5 · Packing :



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6 · Reliability Test Conditions :

6.1 Mechanical Sequence

	Test Items	Test Conditions	Performance Requirements
a	Vibration	10 – 55 –10Hz, Sine wave sweep 15 minutes. X,Y,Z 3 direction 2 hours each, Total 6 hours	The measured values shall meet Remarks 1,2
b	Resistance to Soldering Heat	Lead terminal are immersed up to 1.5m/m from sounder's body in solder bath of 300±5°C for 3±0.5 seconds or 260±5°C for 10±0.5 seconds.	
c	Free Drop Test	Free fall from a hight of 100 cm. Onto the 10 m/m thick hardwood board, 9 times, any directions	
d	Solderability	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.)
e	Terminal Strength Pushing	The force 10 seconds of 1.0Kg is applied to each terminal in axial direction.	No visible damage and cutting off.

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6.2 Environmental Sequence

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

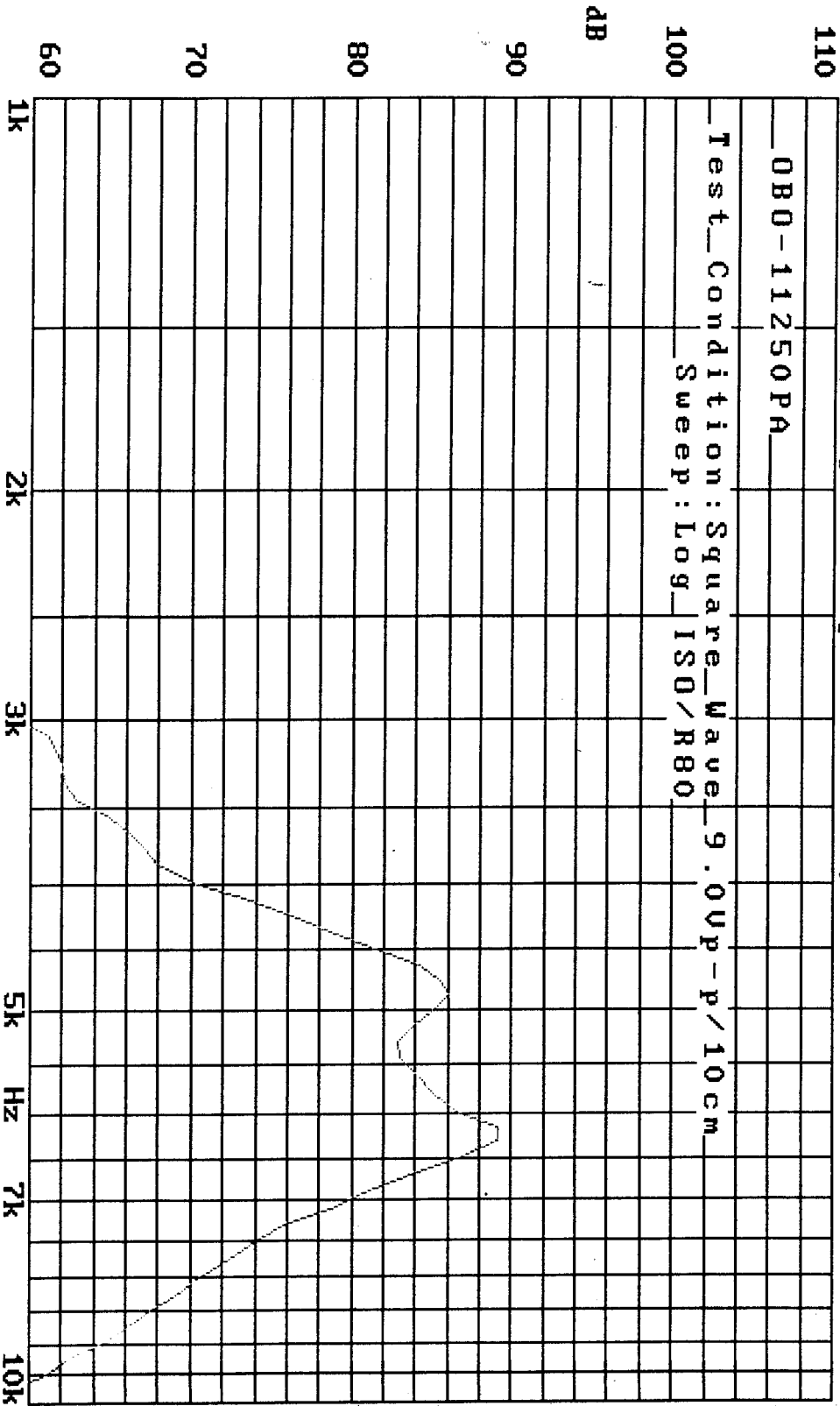
6.3 Operating Life Sequence

	Test Items	Test Conditions	Performance Requirements
a	Ordinary Temp. Operating Test	Continuous sound generation for 96 hrs. at 5.0KHz/9.0Vp-p and +25±10°C	The measured values shall meet Remarks 1,2
b	High Temperature Operating Test	Continuous sound generation for 96 hrs. at 5.0KHz/9.0Vp-p and +70±2°C	
c	Low Temperature Operating Test	Continuous sound generation for 96 hrs. at 5.0KHz/9.0Vp-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%

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



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Mode: SSR

