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| OBO.Pro.2® | SPECIFICATIONS | MODEL NO. OBO-11250PB |
| | 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 2/20/07 | 葉可政 2/20/07 |

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MODEL NO : OBO-11250PB

Features : External drive & Lead Pin Type.

Wave Solder And Wash Not Allowed.

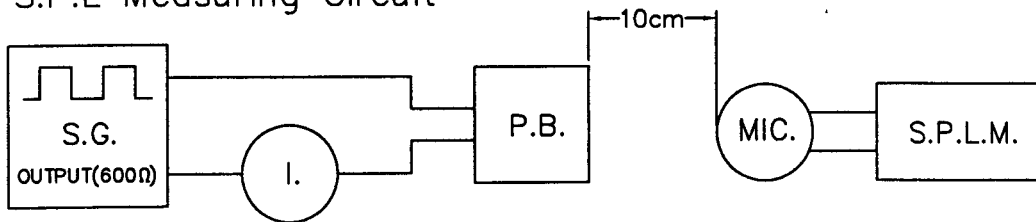
Conformity RoHS Directive (2002/95/EC) Requests. ※1

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 Meter IEC651 TYPE2
- I. :GDM-8145 Multimeter or Equivalent
- P.B. :Piezoelectric Buzzer

Note: please pay attention never to be applied DC voltageto piezo sounder.

2.2 Standard Test Condition

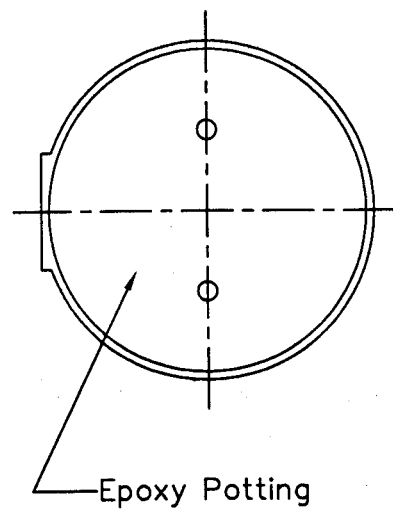
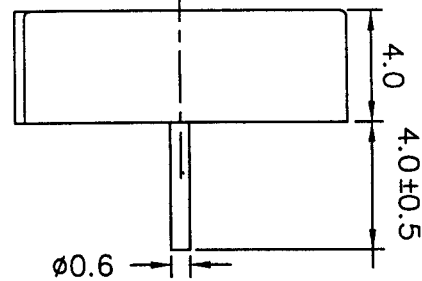
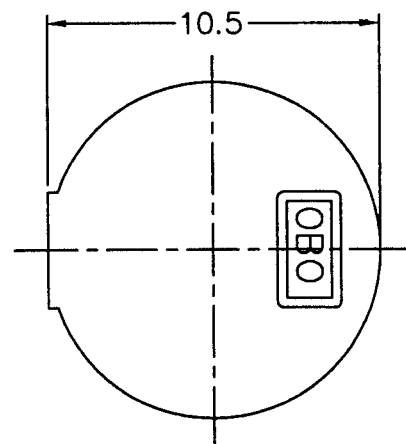
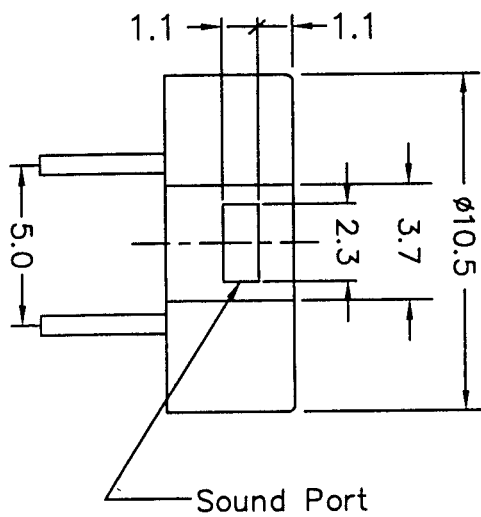
Part shall be measured under a condition(Temperature: +5 to +35°C, Humidity: 45% to 85%R.H.) unless the standard condition (Temperature: +25±3°C, Humidity: 60±10%R.H.) is regulated to measure.

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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. |

OBO Pro.2

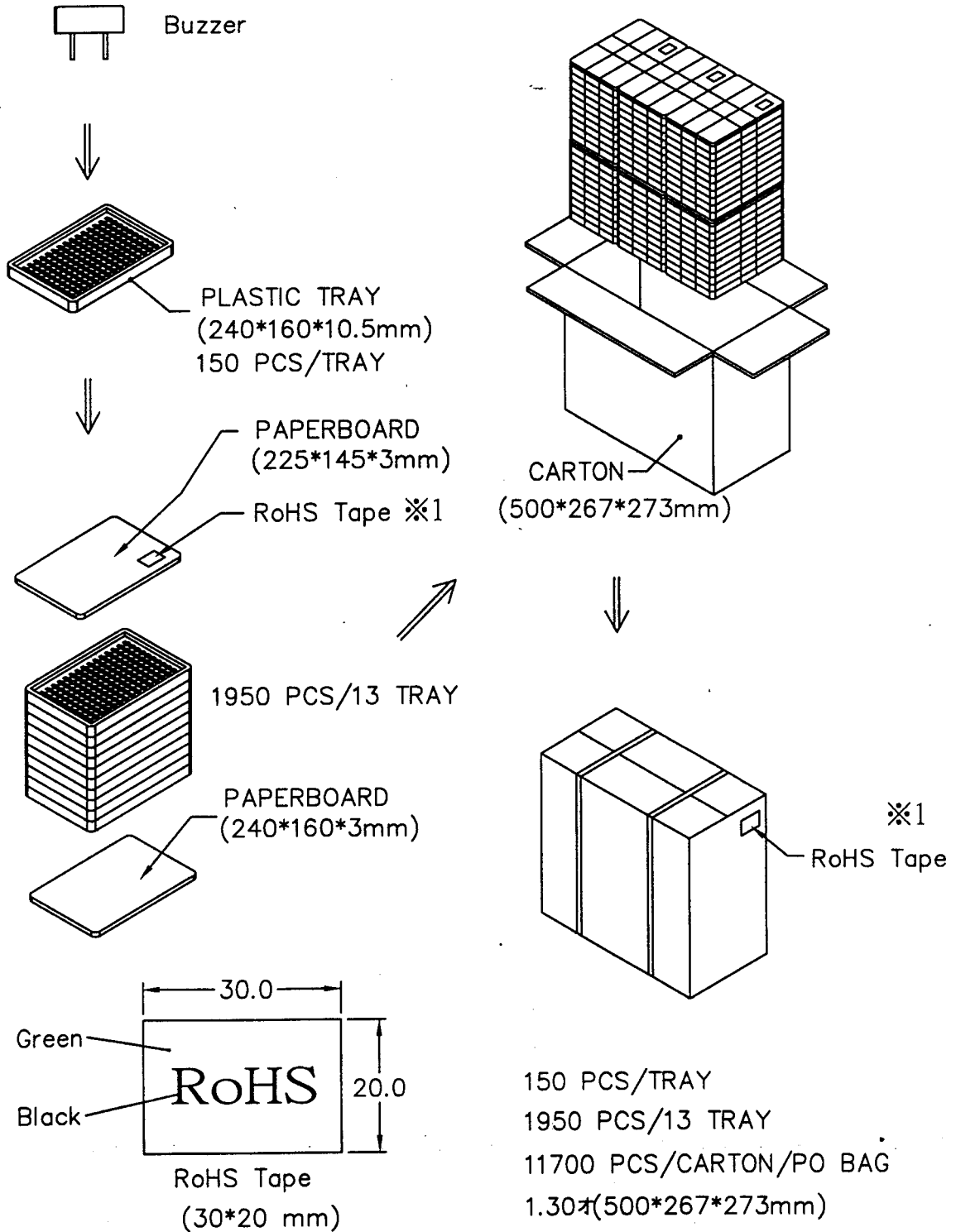
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5 · Packing :



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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 | |

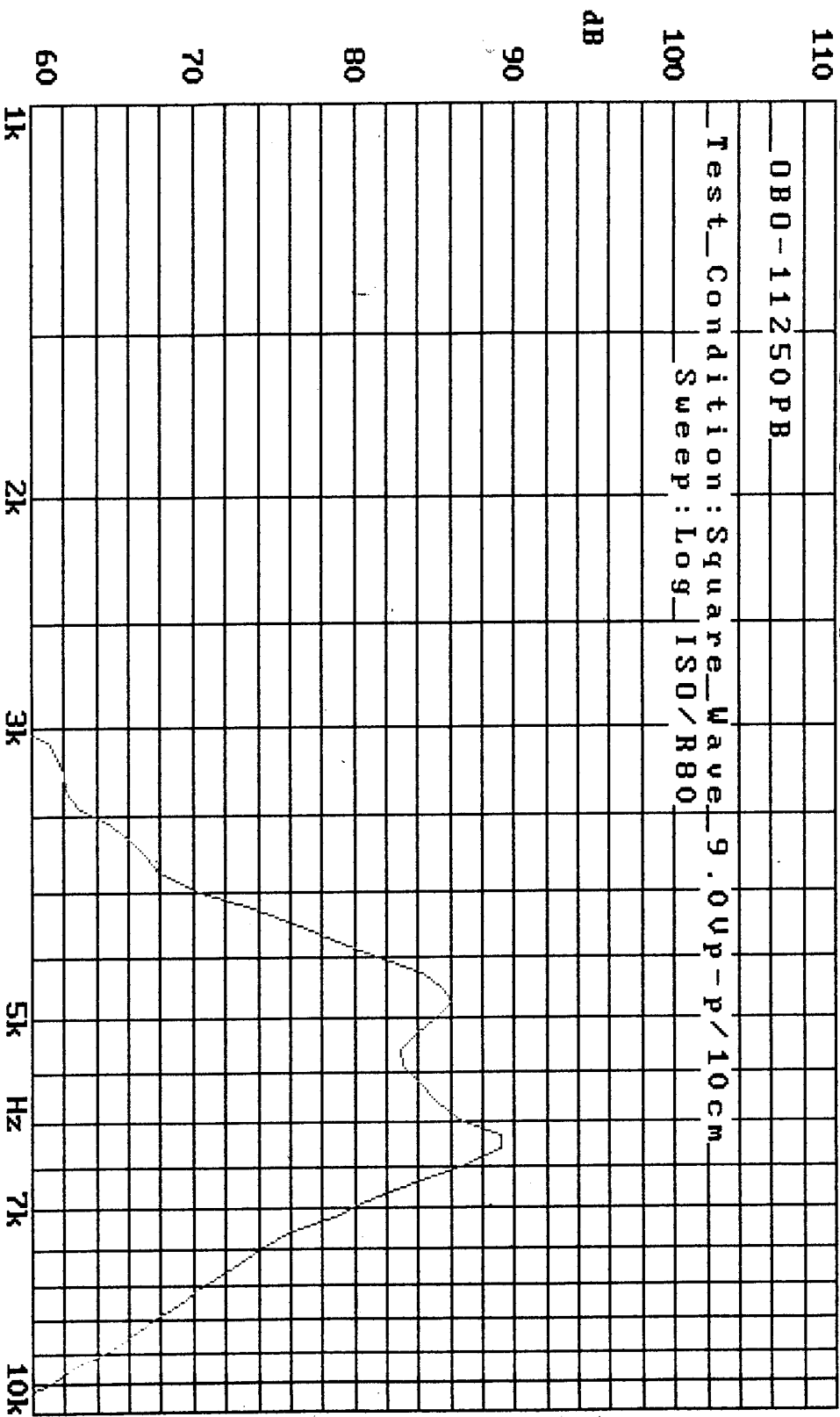
6.3 Operating Life Sequence

| | 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

