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# SPECIFICATION FOR APPROVAL

|                   |                 |
|-------------------|-----------------|
| Product           | MAGNETIC BUZZER |
| Part No.          | AC-905G-PD      |
| Customer Approval |                 |

| Approved By | Checked By | Made By |
|-------------|------------|---------|
|             |            |         |

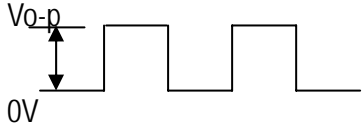


**A & B Components**

**<http://www.speaker-tw.com>**

# 1. Specifications

AC-905G-PD

| Items |                           | Units        | Specifications | Conditions  |
|-------|---------------------------|--------------|----------------|---|
| 01    | Rated Voltage             | Vo-p         | 5.0            |                            |
| 02    | Operating Voltage         | Vo-p         | 4.0 ~ 6.0      |   |
| 03    | Consumption Current       | mA<br>(Max)  | Mean 60        | Applying rated voltage, rated frequency<br>Square wave, 1/2 duty subject to standard state.                   |
|       |                           |              | Peak 180       |   |
| 04    | Direct Current Resistance | Ohm          | 40±4           |   |
| 05    | Sound Output              | dBa<br>(min) | 85             | Distance at 10cm, applying rated voltage, rated frequency square wave,<br>1/2 duty subject to standard state. |
| 06    | Rated Frequency           | Hz           | 2731           |   |
| 07    | Operating Temp.           | °C           | -30 ~ +75      |   |
| 08    | Storage Temp.             | °C           | -40 ~ +85      |   |
| 09    | Weight                    | Gram         | 1              |   |

## 2. Measuring Method

### 2-1. Test Condition

STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

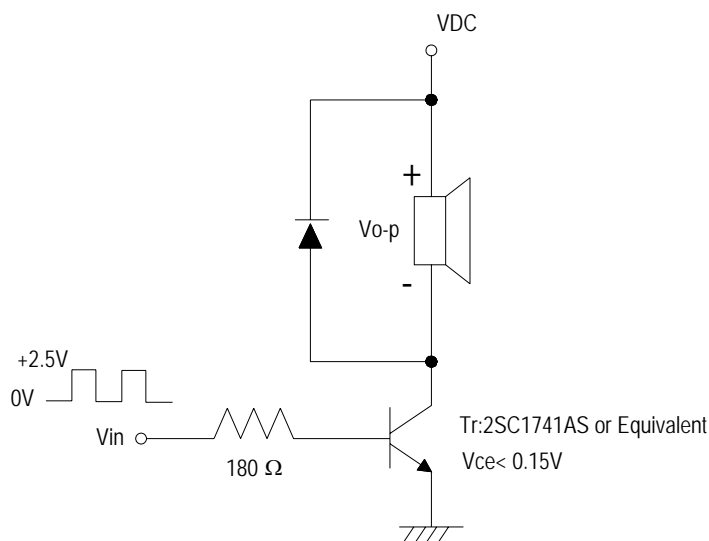
JUDGEMENT

Temperature : 20±3°C

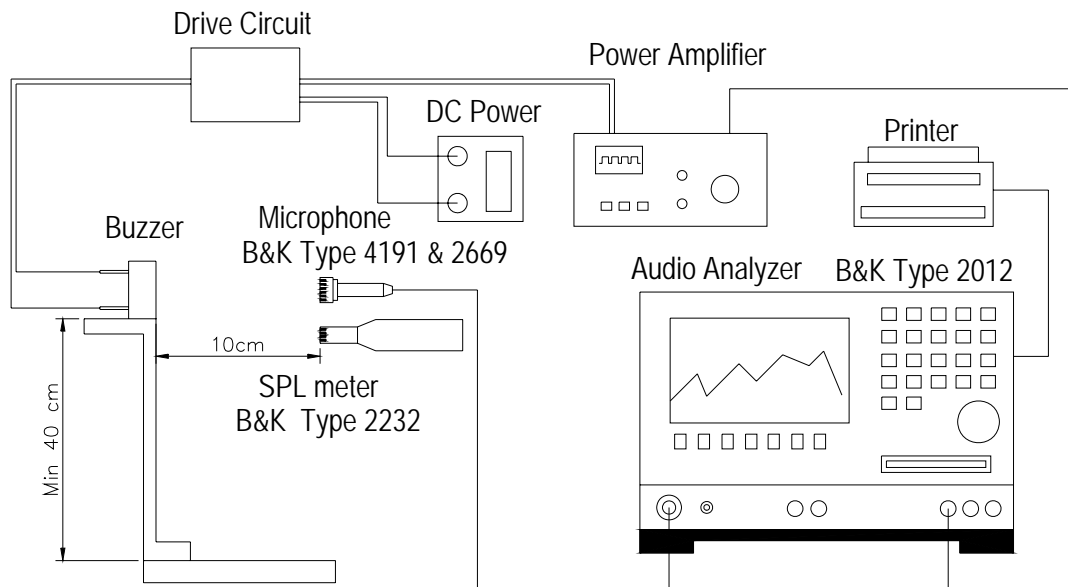
Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

### 2-2. Standard Drive Circuit:

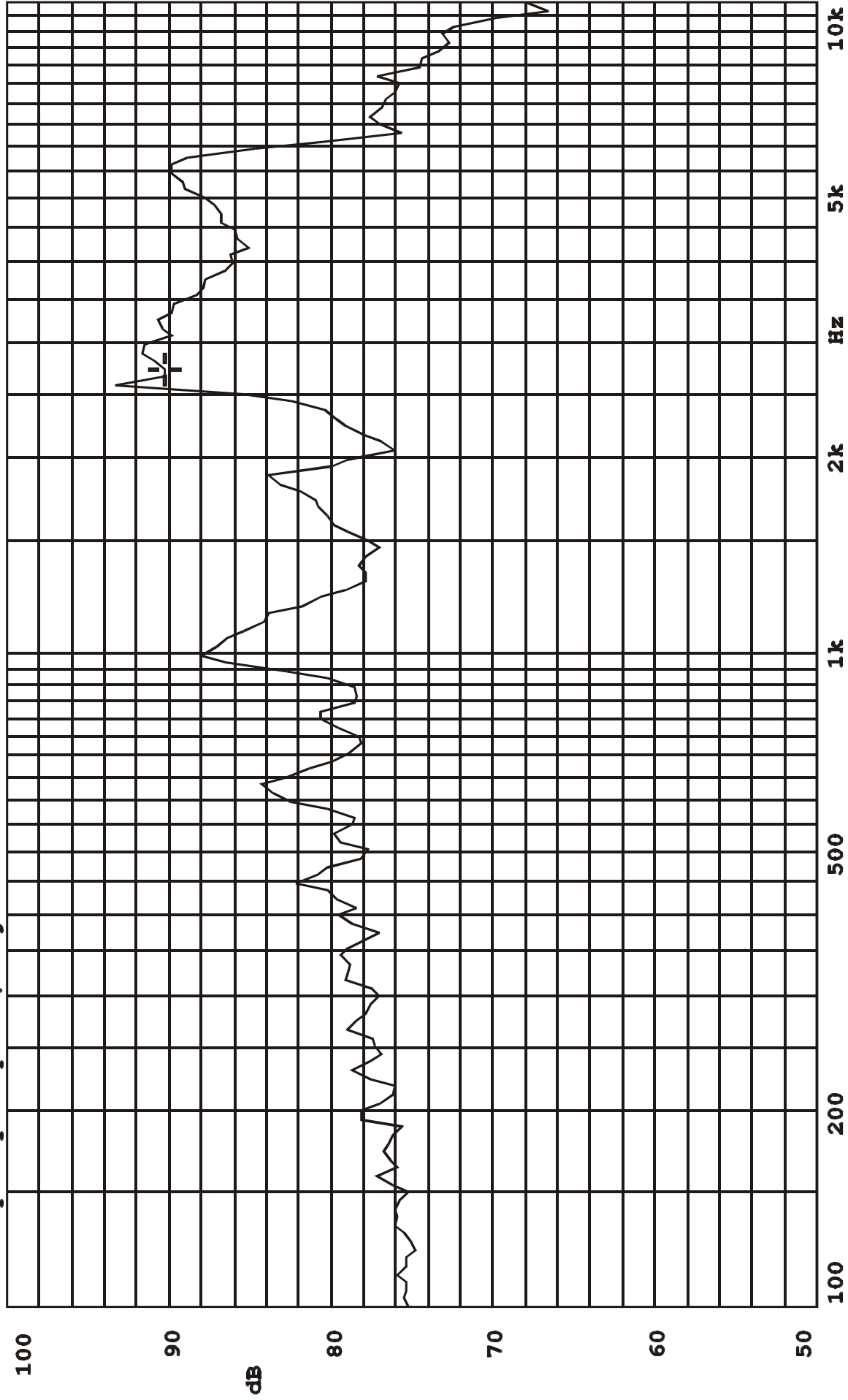


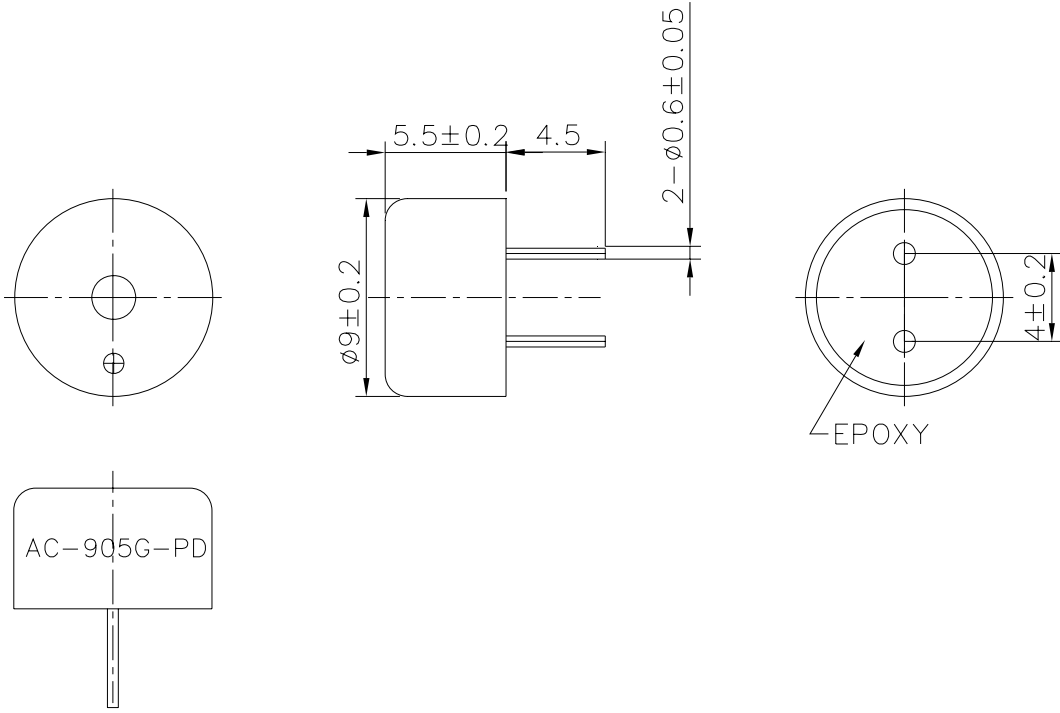
## 2-3. Standard Test Fixture



## 2-4. Frequency Response Curve

A: Frequency Response, Magn dB re 20.00  $\mu$ PA

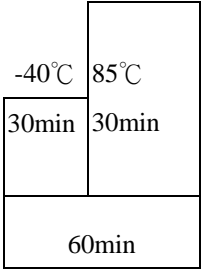
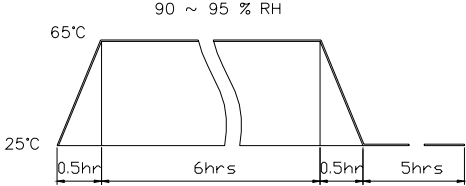




|                                |  |                                  |  |               |
|--------------------------------|--|----------------------------------|--|---------------|
| TITLE: <i>SOUND TRANSDUCER</i> |  | DRAWN: <i>Richard</i> 11/26/2001 | SCALE: 3:1   | SHEET: 1 of 1 |
| PART NO. <i>AC-905G-PD</i>     |  | DESIGNED: <i>R&amp;D DEP.</i>    | UNITS: <i>mm</i>   |               |
| DWC NO. <i>DTT-2009</i>        |  | <i>1</i>                         | TOLERANCE $\pm 0.5$  |               |
|                                |  | REV                              | UNLESS OTHERWISE SPECIFIED:<br>ONE PLACE DECIMAL $\pm$ ***<br>TWO PLACE DECIMAL $\pm$ ***<br>THREE PLACE DECIMAL $\pm$ *** |               |
|                                |  | MATERIAL: <i>NORYL</i>           |  |               |

*A & B Components*

## 4. RELIABILITY TEST

| Item                      | Test conditions   | Evaluation standard   |
|---------------------------|---|---|
| 01 High temp.Storage life | The part shall be capable of withstanding a storage Temperature of 85°C for 96 hours.   | After the test the part shall meet specifications without Any degradation in appearance and performance except S.P.L S.P.L shall be 74dB or more. |
| 02 Low temp.Storage life  | The part shall be capable of withstanding a storage Temperature of -40°C for 96 hours.  |   |
| 03 Temp. cycle            | The part shall be subjected 10 cycles. One cycle shall consist of; <div style="text-align: center; margin: 10px 0;">  <p>The diagram shows a rectangular temperature cycle. The top-left corner is labeled -40°C and the top-right corner is labeled 85°C. The left vertical segment is labeled 30min, the right vertical segment is labeled 30min, and the bottom horizontal segment is labeled 60min.</p> </div> |   |
| 04 Temp./Humidity cycle   | The part shall be subjected 10 cycles. One cycle shall be 12 hours and consist of; <div style="text-align: center; margin: 10px 0;">  <p>The diagram shows a trapezoidal temperature and humidity cycle. It starts at 25°C, ramps up to 65°C in 0.5hr, holds at 65°C for 6hrs with 90 ~ 95 % RH indicated above the plateau, ramps down to 25°C in 0.5hr, and holds at 25°C for 5hrs.</p> </div>                 |   |
| 05 Operating life         | Rated Voltage,Frequency applied.<br>1. Ordinary temperature<br>The part shall be subjected to 1000 hours at room temperature (25 ±10°C)<br>1. High temperature<br>The part shall be subjected to 500 hours at 85°C<br>2. Low temperature<br>The part shall be subjected to 500 hours at -40°C   |   |
| 06 Lead Strength          | Pull load on the direction of the lead axis for 10 ±1 sec.  |   |
| 07 Vibration              | The part shall be subjected to a vibration cycle of 10Hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm (9.3G). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.   |   |

| Item |                        | Test conditions  | Evaluation standard   |
|------|------------------------|--|---|
| 08   | Fixed drop             | The part shall be mounted on standard pc board and dropped from a height of 152cm onto a concrete floor 5 times in each 6 planes.(a total of 30 times) | <p>After the test the part shall meet specifications without Any degradation in appearance and performance except S.P.L</p> <p>S.P.L shall be 74dB or more.</p> |
| 09   | Free drop              | The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X.Y.Z).<br>(a total of 9 times).                |   |
| 10   | Solder heat resistance | Soldering into solderbath : $350\pm 5^{\circ}\text{C}$<br>Soaking time : $3.5\pm 0.5$ sec  |   |
| 11   | Solder ability         | Hand Soldering : $350\pm 5^{\circ}\text{C}$ / 2 Sec.<br>Solderbath : $260\pm 5^{\circ}\text{C}$ / 2 sec  |   |
| 12   | Lead strength          | Pull lead with a force of 10N,on the direction of the lead axis for 10 : $10\pm 1$ sec   |   |
| 13   | Washability            | Solvent : deionized water<br>Solvent temp. : $55\pm 5^{\circ}\text{C}$<br>Soaking time : $5\pm 0.5$ min.   |   |