# SPECIFICATION FOR APPROVAL

| Product  | MAGNETIC BUZZER |
|----------|-----------------|
| Part No. | AC-703R-P       |
| Customer |                 |
| Approval |                 |

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



A & B Components

http://www.speaker-tw.com

1. Specifications AC-703R-P

|                    | Items                     | Units                  | Specifications | Conditions  |
|--------------------|---------------------------|------------------------|----------------|---|
| 01                 | Rated Voltage             | Vo-p                   | 3.0            | Vo-p<br>OV  |
| 02                 | Operating Voltage         | Vo-p                   | 2 ~ 4          |   |
| 03 Comsumption Cui | Comcumption Current       | mA                     | Mean 100.      | Applying rated voltage, rated frequency  Square wave, 1/2 duty subject to standard                        |
|                    | Comsumption Current       | (Max)                  | Peak 300       | state.  |
| 04                 | Direct Current Resistance | Ohm                    | 8±1            |   |
| 05                 | Sound Output              | dBA<br>(min)           | 70             | Distance at 10cm, applying rated voltage, rated frequency square wave, 1/2duty subject to standard state. |
| 06                 | Rated Frequency           | Hz                     | 3100           |   |
| 07                 | Operating Temp.           | $^{\circ}\!\mathbb{C}$ | -20 ~ +70      |   |
| 80                 | Storage Temp.             | $^{\circ}\!\mathbb{C}$ | -30 ~ +80      |   |
| 09                 | Weight                    | Gram                   | 1.0            |   |

## 2. Measuring Method

#### 2-1. Test Condition

**STANDARD** 

Temperature : 15 ~  $35^{\circ}$ C

Relative humidity: 25% ~ 85%,

Atmospheric pressure: 860mbar to 1060mbar.

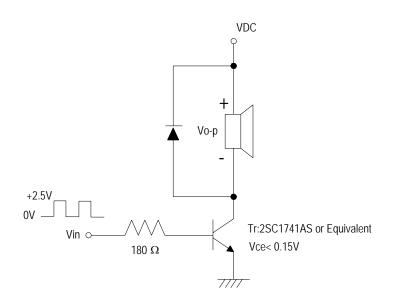
**JUDGEMENT** 

Temperature :  $20\pm3^{\circ}$ C

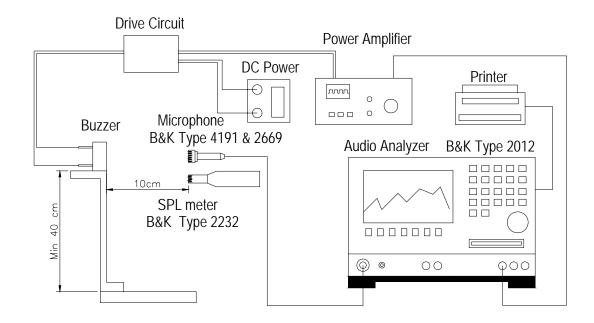
Relative humidity: 60% ~ 70%,

Atmospheric pressure: 860mbar to 1060mbar

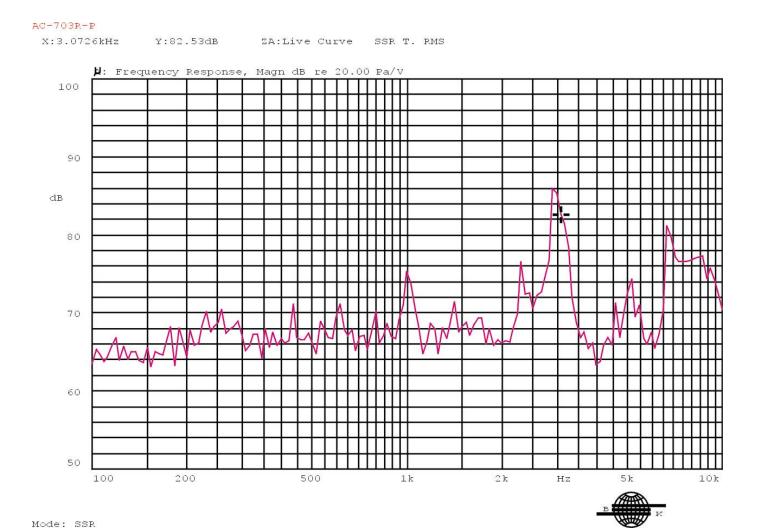
#### 2-2. Standard Drive Circuit:



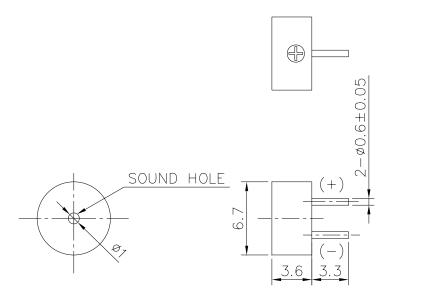
#### 2-3. Standard Test Fixture

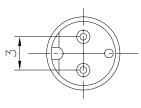


### 2-4. Frequency Response Curve



REV NO. REVISION NOTE APPROVAL DATE





Wave Solder and Wash NOT Allowed.

| TITLE:               | SOUND    | TRANSDUC | CER       | DRAWN:    | Richard | 11/16/2004            | SCALE: 3:1              | SHEET: 1      | of 1    |
|----------------------|----------|----------|-----------|-----------|---------|-----------------------|-------------------------|---------------|---------|
|                      |          |          | DESIGNED: | R&D DEF   | ٥.      | UNITS:                | mm                      |               |         |
| PART NO.             | AC-7C    | 3R-P     | 1         | CHECKED:  |         |                       | TOLERANCE<br>UNLESS OTH |               | CIFIFD: |
| DWG NO.              | D.III.E  |          |           | APPROVAL: |         |                       | ONE PLACE               | $DECIMAL \pm$ | ***     |
| <i>D</i> # 0 1 1 0 . | DTE-2060 | REV      | MATERIAL: | PP0       |         | TWO PLACE THREE PLACE | DECIMAL ±<br>CE DECIMAL |               |         |
|                      |          |          | ILL V     | MAIERIAL: | PPU     |                       | THREE PLA               | CE DECIMAL    | ± ***   |

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.   |   |
| 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;  85°C  |   |
| 03   |                        | -40°C 30 min 30 min 60 min  | After the test the part shall meet specifications without Any degradation in appearance |
| 04   | Temp./Humidity cycle   | The part shall be subjected 10 cycles. One cycle shall be 12 hours and consist of;  90 ~ 95 % RH  65°C  0.5hr 6hrs 0.5hr 5hrs   | and performance except S.P.L S.P.L shall be 74dB or more.                               |
| 05   | Operating life         | <ul> <li>Rated Voltage, Frequency applied.</li> <li>1. Ordinary temperature  The part shall be subjected to 1000 hours at room tremperature (25 ±10°C)</li> <li>3. High temperature  The part shall be subjected to 500 hours at 75°C</li> <li>2. Low temperature  The part shall be subjected to 500 hours at -30°C</li> </ul> |   |
| 06   | 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           |  |  |  |
|------|------------------------|--|-------------------------------|--|--|--|
| 07   | 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) | After the test the part shall |  |  |  |
| 08   | 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).  (a total of 9 times).                  |                               |  |  |  |
| 09   | Solder heat resistance | Soldering into solderbath : 350±5°C Soaking time : 3.5 sec   | S.P.L shall be 74dB or more.  |  |  |  |
| 10   | Solder ability         | Soldering : $260\pm5^{\circ}$ C / 5 Sec. $355\pm5^{\circ}$ C / 1.5 Sec Soldering t into solderbath : $260\pm5^{\circ}$ C / 2 Sec                       |                               |  |  |  |
| 11   | Lead strength          | Pull lead with a force of 10N,on the direction of the lead axis for 10 :10±1 sec   |                               |  |  |  |
| 12   | Washability            | Solvent : deionized water Solvent temp. : 55±5°C Soaking time : 5±0.5 min.   |                               |  |  |  |