# SPECIFICATION FOR APPROVAL

| Product  | MAGNETIC BUZZER |  |
|----------|-----------------|--|
| Part No. | AP-2506M        |  |
| Customer |                 |  |
| Approval |                 |  |

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

### A & B Components

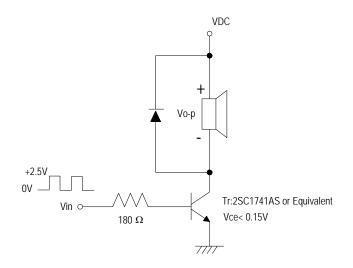


http://www.speaker-tw.com

#### AP-2506-M

|    | Items Units Specifications |              | Conditions             |           |  |
|----|----------------------------|--------------|------------------------|-----------|--|
| 01 | Rated Voltage              | Vo-p         | 6                      |           | V <u>o-p</u><br>VO-p<br>VO-p<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D<br>VO-D |
| 02 | Operating Voltage          | Vo-p         | 3~8                    |           |  |
| 03 | Mean Current               | mA<br>(Max)  | 70                     |           | Applying rated voltage, rated frequency<br>Square wave,1/2 duty subject to standard<br>state.  |
| 04 | Direct Current Resistance  | Ohm          | 36±5                   |           |  |
| 05 | Sound Output               | dBA<br>(min) | 96/1000HZ<br>94/2000HZ |           | Distance at 10cm, applying rated voltage,<br>rated frequency square wave,<br>1/2duty subject to standard state.  |
| 06 | Rated Frequency            | Hz           | 1000                   |           |  |
| 07 | Operating Temp.            | °C           | -40 ~ +85              |           |  |
| 08 | Storage Temp.              | °C           | -50 ~ +95              |           |  |
| 09 | Dimension                  | mm           | Φ 25                   | Height 12 | 5 See attached drawing.  |
| 10 | Weight                     | Gram         | 10                     |           |  |
| 11 | Terminal                   |              | Two PIN                |           | See attached drawing.  |

Standard Drive Circuit:



**\***Standard Conditions:

Temperature  $15 \sim 35^{\circ}$ C

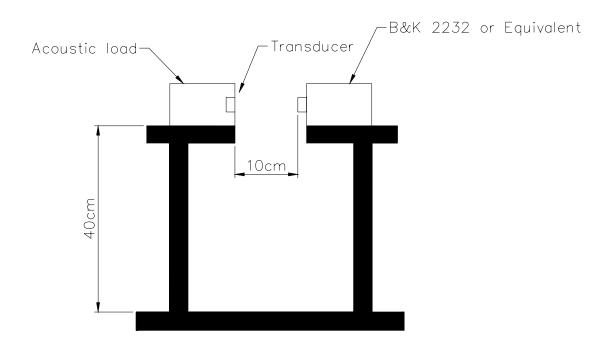
Humidity 25 ~ 80 %

Air pressure 860 ~ 1060 HPa.

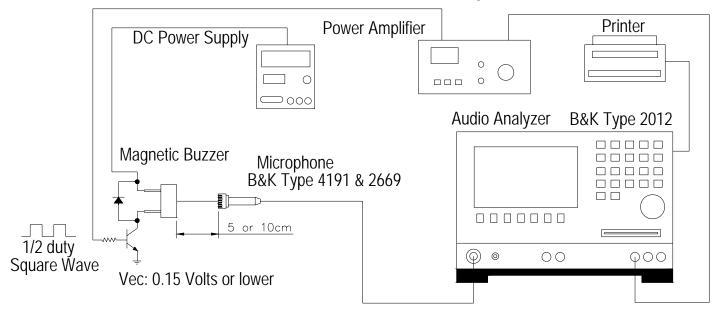
If the result is doubtful, should retested with the conditions below: Temp.  $20\pm2^{\circ}$ C, Humidity 60 ~ 70 %, Air pressure 860 ~ 1060 HPa.

Note: As this product is not protected from foreign material entering, please make sure that any foreign materials(e.g. magnetic powder, washing solved, flux, corrosive gas)do not enter this product in your production processes. The functional degradation(e.g. SPL down)may occur if foreign material enter it.

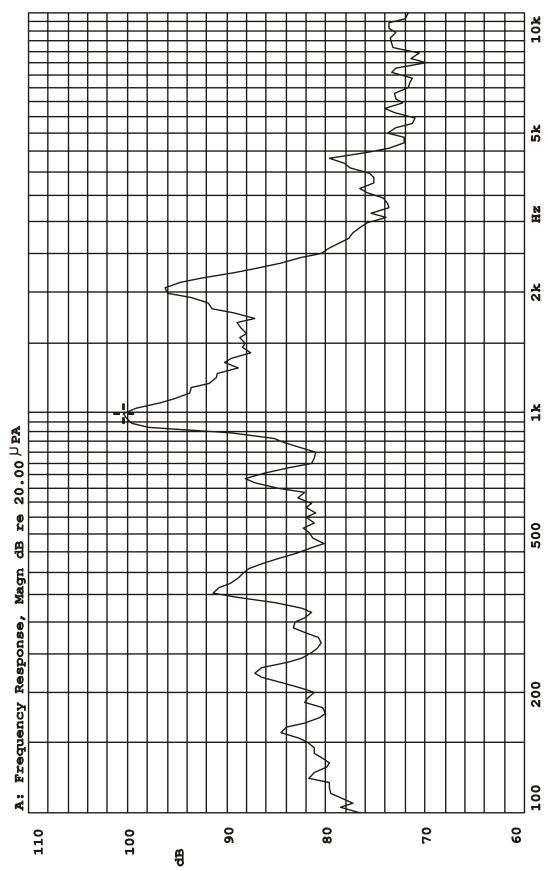
#### STANDARD TEST FIXTURE



### Standard test condition of magnetic buzzer



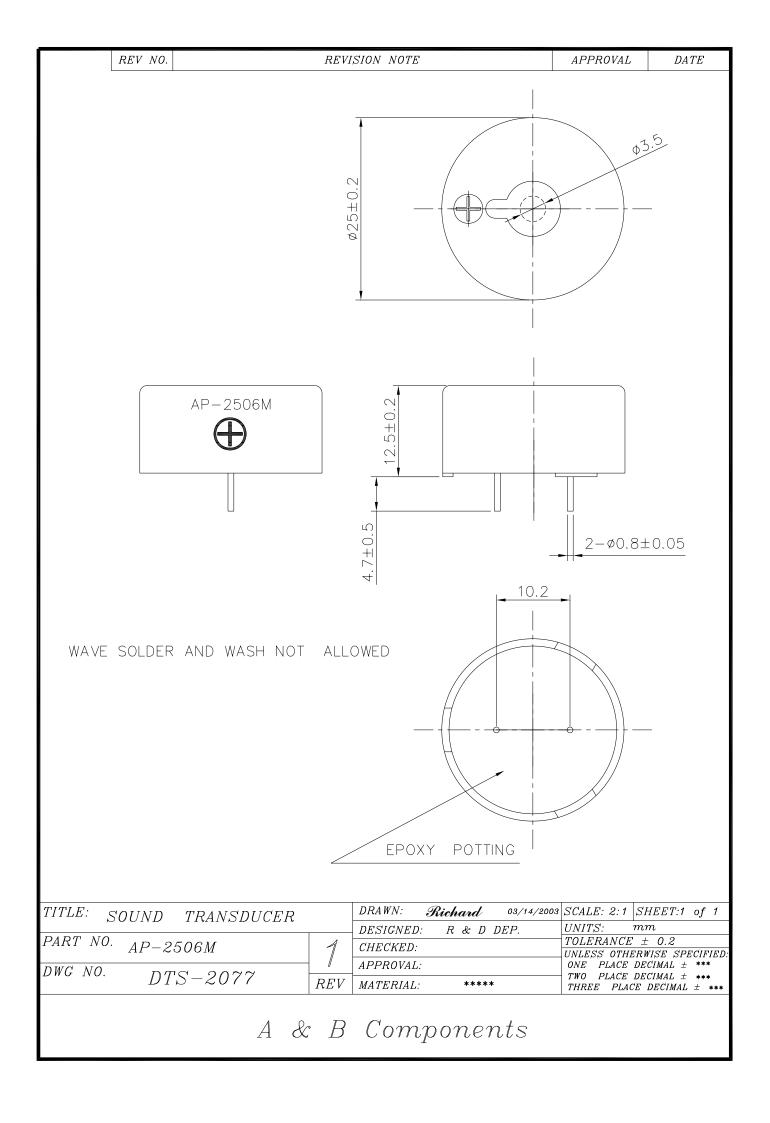
Mode: SSR



ZA:Live Curve Y:100.33dB

X:1.0000kHz

SSR T. RMS



# AP-2506M

# **RELIABILITY TEST**

|    | Item                       | Test conditions  | Evaluation<br>standard  |
|----|----------------------------|--|---|
| 01 | High temp.<br>Storage life | The part shall be capable of withstanding a storage Temperature of $95^{\circ}$ C for 96 hours.  | After the test the part<br>shall meet<br>specifications without<br>Any degradation in<br>appearance and<br>performance except<br>S.P.L<br>S.P.L shall be 77dB or<br>more. |
| 02 | Low temp.<br>Storage life  | The part shall be capable of withstanding a storage Temperature of $-50^{\circ}$ C for 96 hours.   |   |
| 03 | Temp.cycle                 | The part shall be subjected 10 cycles. One cycle shall consist of;   |   |
| 04 | Temp./Humidity<br>cycle    | The part shall be subjected 10 cycles. One<br>cycle shall be 8 hours and consist of;<br>95°C<br>25°C<br>a b c<br>2.5hrs 3.0hrs 2.5hrs<br>a,b:90~98%RH<br>c :80~98%RH |   |

## AP-2506M

# **RELIABILITY TEST**

|    | Item                  | Test conditions  | Evaluation standard   |
|----|-----------------------|--|---|
| 05 | Vibration             | The part shall be subjected to a vibration<br>cycle of 10Hz to 55Hz to 10Hz in a period of<br>1 minute. Total peak amplitude shall be<br>1.52mm (9.3G). The vibration test shall<br>consist of 2 hours per plane in each three<br>mutually perpendicular planes for a total<br>time<br>Of 6 hours.   |   |
| 06 | Fixed drop            | The part shall be mounted on 100g<br>jig(standard pc board) and dropped from a<br>height of 152cm onto a concrete floor 5<br>times in each 6 planes.<br>(a total of 30 times)  | After the test the part shall meet specifications             |
| 07 | Free drop             | The part only shall be dropped from a height<br>of 75cm onto a 40mm thick wooden board 3<br>times in 3 axes (X.Y.Z).<br>(a total of 9 times).  | without<br>Any degradation and<br>performance except<br>S.P.L |
| 08 | <b>Operating life</b> | <ol> <li>Ordinary temperature<br/>The part shall be subjected to 1000 hours<br/>at room temperature (25 ±10°C)with<br/>6V,1000Hz applied.</li> <li>High temperature<br/>The part shall be subjected to 500 hours<br/>at 85°C with 6V, 1000Hz applied.</li> <li>Low temperature<br/>The part shall be subjected to 500 hours<br/>at -40°C with 6V, 1000Hz applied.</li> </ol> | S.P.L shall be 77dB or<br>more.                               |