

MESSRS.

SPECIFICATION FOR APPROVAL

承 認 書

| | |
|-------------------|--------------------|
| Product | MAGNETIC BUZZER |
| Part No. | AD-1405-CQ1 (RoHS) |
| Customer Approval | |

| Approved By | Checked By | Made By |
|-------------------------------|--------------------------------|-------------------------------|
| 工程 BOB CHEN FEB-18-2008 | 工程 DAVID LIU FEB-18-2008 | 工程 JOHN HSU FEB-18-2008 |



ADVANCED ACOUSTIC TECHNOLOGY CORP.

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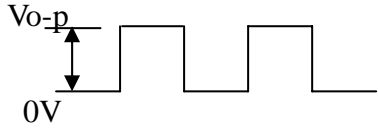
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AD-1405-CQ1 (RoHS)

1.SPECIFICATION

| Items | | Units | Specifications | Conditions |
|-------|---------------------|--------------------|----------------|--|
| 01 | Rated Voltage | Vo-p | 5.0 |  |
| 02 | Operating Voltage | Vo-p | 3.0 ~ 6.0 | |
| 03 | Consumption Current | mA (max) | Mean 80 | Standard State, Standard Drive Circuit. Rated Voltage, Rated Frequency, Distance at 10 cm free air, Square Wave 1 / 2 Duty |
| | | | Peak 240 | |
| 04 | Sound Output | dB (min) | 87 | |
| 05 | Resonant Frequency | Hz | 2730 | |
| 06 | Coil Resistance | Ω | 43 ± 3 | |
| 07 | Operating Temp. | $^{\circ}\text{C}$ | -30 ~ +75 | |
| 08 | Storage Temp. | $^{\circ}\text{C}$ | -40 ~ +85 | |
| 09 | Weight | Gram | 1.0 | |

2.Test Condition

STANDARD

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

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

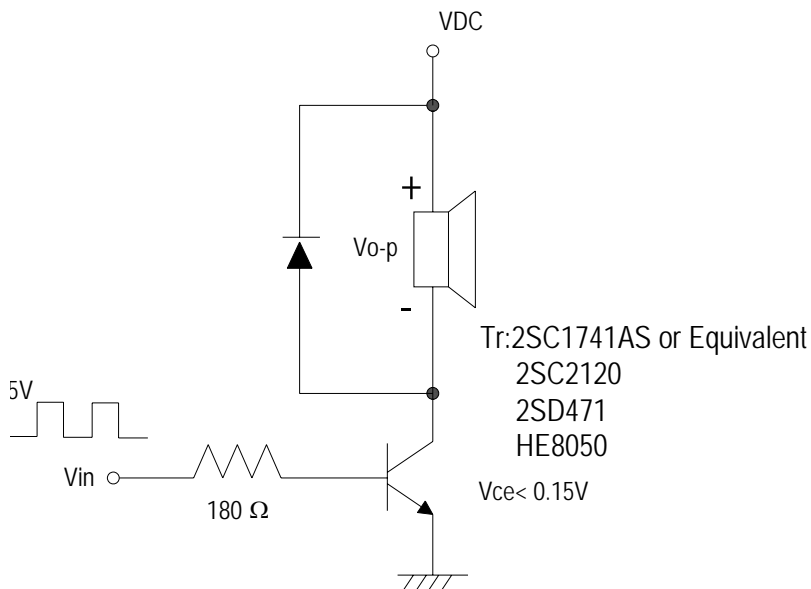
BASIC

Temperature : 20 \pm 3 $^{\circ}\text{C}$

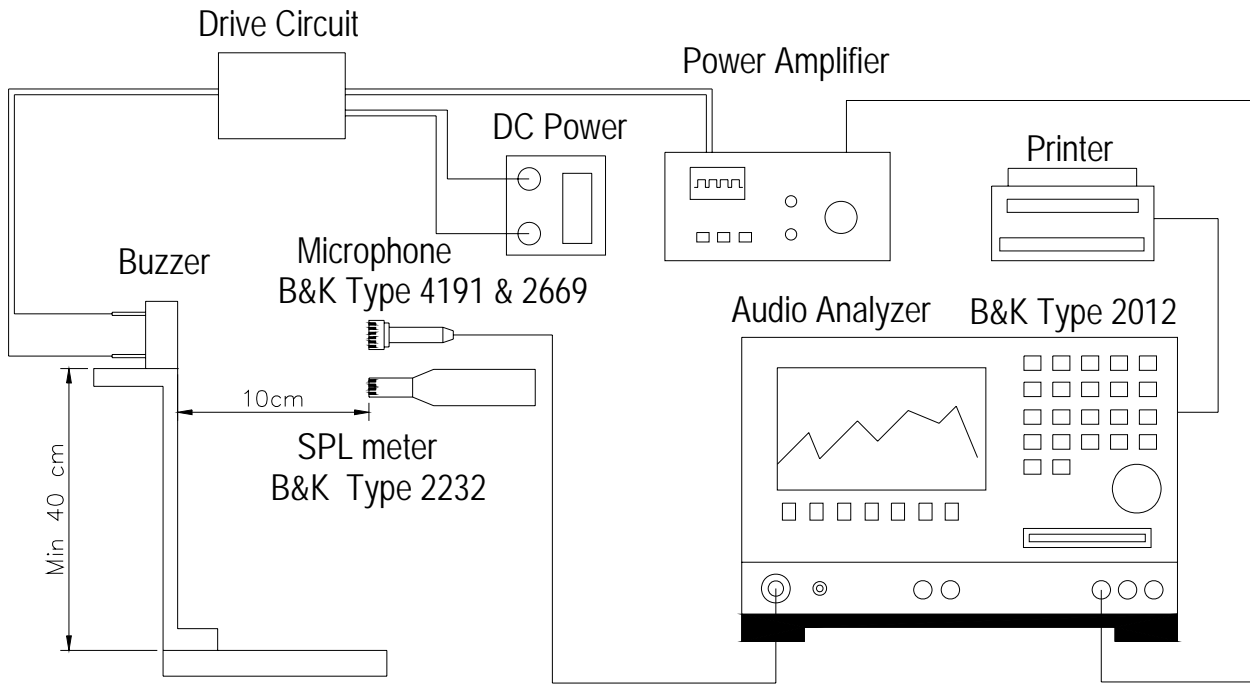
Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

Standard Drive Circuit

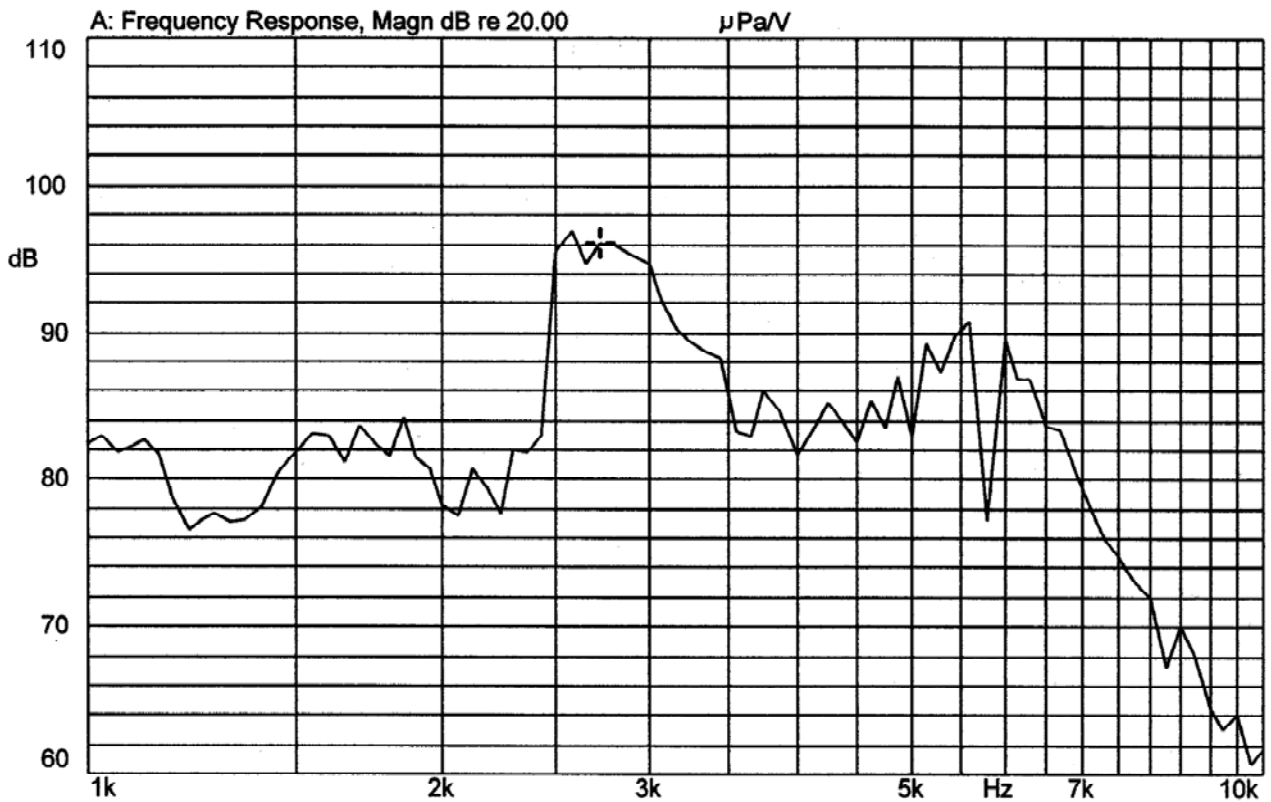


Standard Test Fixture



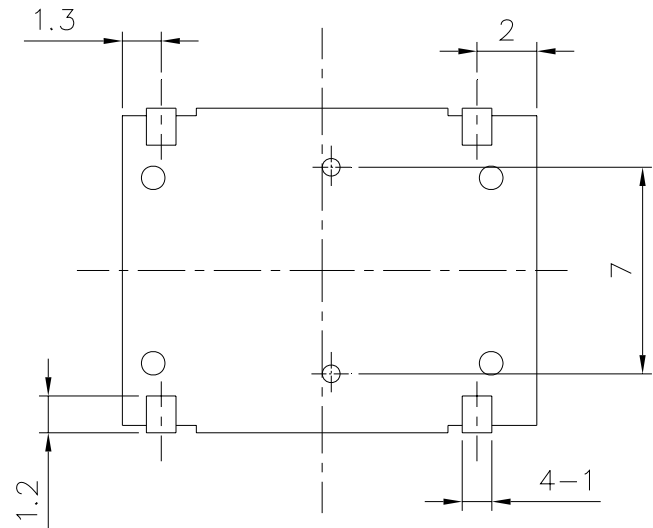
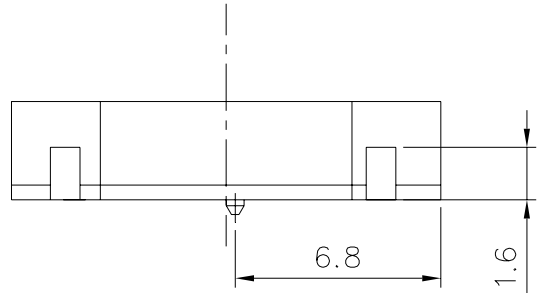
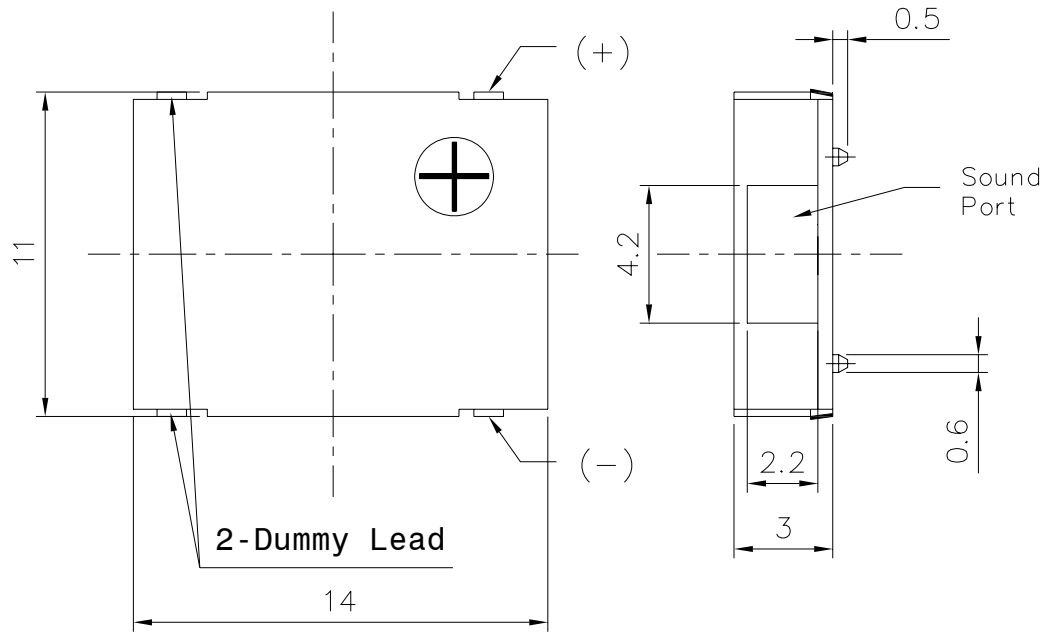
Frequency Response Curve

X:2.7200kHz Y:96.07dB ZA:Live Curve SSR T. RMS



Mode: SSR

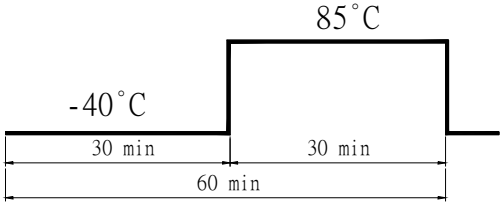
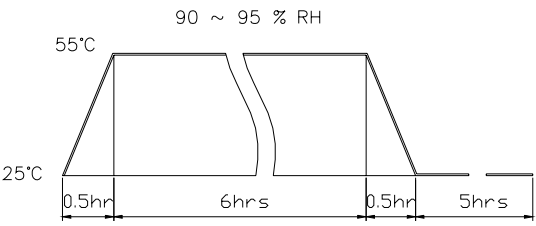




| | | | | |
|-------------------------------|----------------------|------------|-----------------------------|---------------|
| TITLE: SOUND TRANSDUCER (SMD) | DRAWN: JOHN | 2008/03/11 | SCALE: 4:1 | SHEET: 1 OF 1 |
| PART NO. AD-1405-CQ1 | DESIGNED: R&D OF AAT | | UNITS: mm | |
| DWG NO. DTE-14]99 | CHECKED: | | TOLERANCE ± 0.3 | |
| | APPROVAL: | | UNLESS OTHERWISE SPECIFIED: | |
| REV 1 | MATERIAL: LCP | | ONE PLACE DECIMAL ± *** | |
| | | | TWO PLACE DECIMAL ± *** | |
| | | | THREE PLACE DECIMAL ± *** | |



5.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 78dB 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 | <p>The part shall be subjected 10 cycles. One cycle shall consist of;</p>  <p>The diagram shows a temperature cycle with a total duration of 60 minutes. It consists of a 30-minute hold at -40°C, followed by a 30-minute hold at 85°C.</p> | |
| 04 | Temp./Humidity cycle | <p>The part shall be subjected 10 cycles. One cycle shall be 12 hours and consist of</p>  <p>The diagram shows a 12-hour cycle. It starts with a 0.5-hour ramp from 25°C to 55°C. This is followed by a 6-hour hold at 55°C with 90 ~ 95 % RH. The cycle then has a 0.5-hour ramp down to 25°C, followed by a 5-hour hold at 25°C.</p> | |
| 05 | Operating life | <p>Rated Voltage,Frequency applied.</p> <ol style="list-style-type: none"> Ordinary temperature The part shall be subjected to 1000 hours at room temperature ($25 \pm 10^\circ\text{C}$) High temperature The part shall be subjected to 500 hours at 75°C Low temperature The part shall be subjected to 500 hours at -30°C | |
| 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. | |
| 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) | |

| Item | | Test conditions | Evaluation standard |
|------|---------------|--|---------------------|
| 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). | |
| 10 | Lead strength | Pull lead with a force of 10N, on the direction of the lead axis for 10 :10±1 sec | |
| 11 | Washability | Solvent : deionized water Solvent temp. : 55±5°C Soaking time : 5±0.5 min. | |

SOLDER ABILITY

Temperature profile for reflowable Buzzer .

