
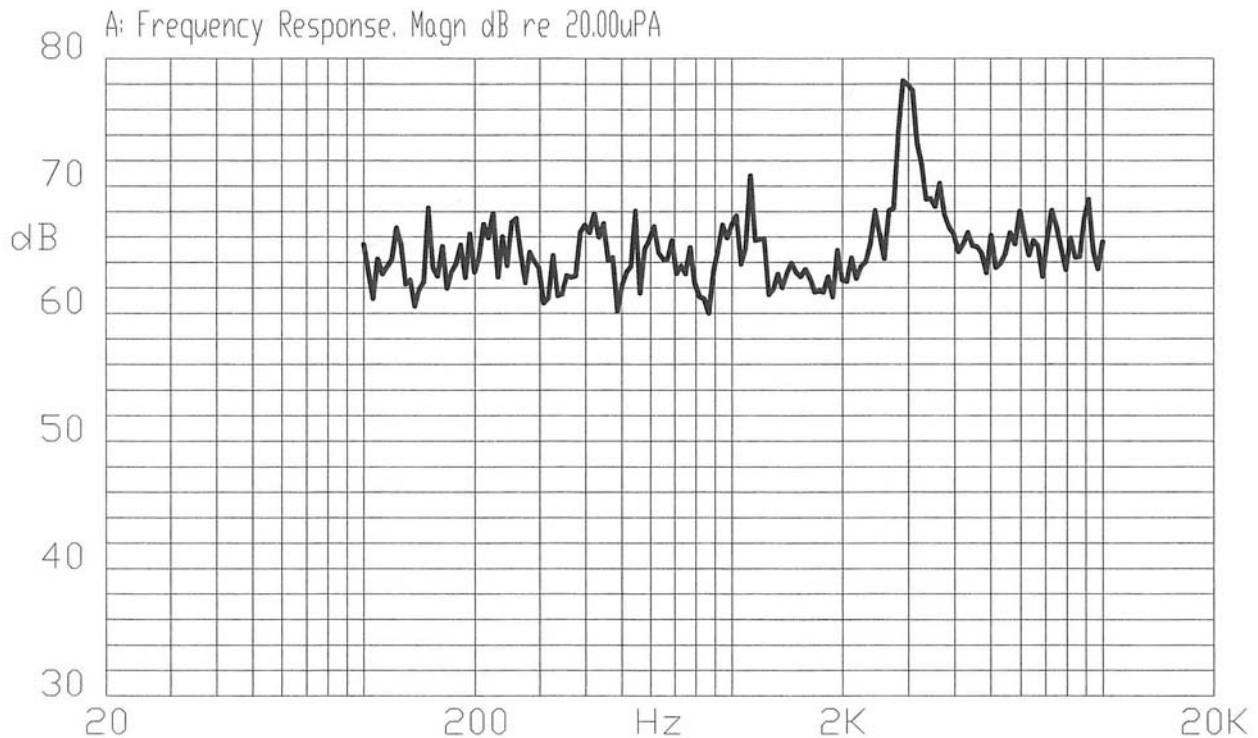




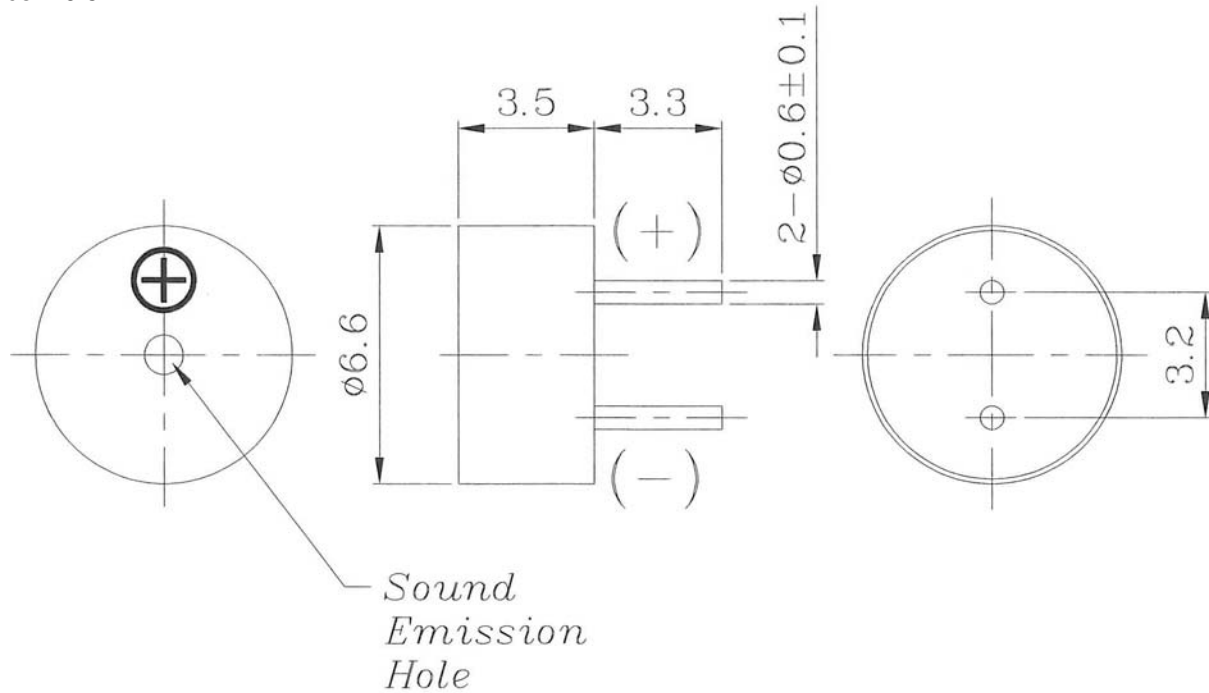
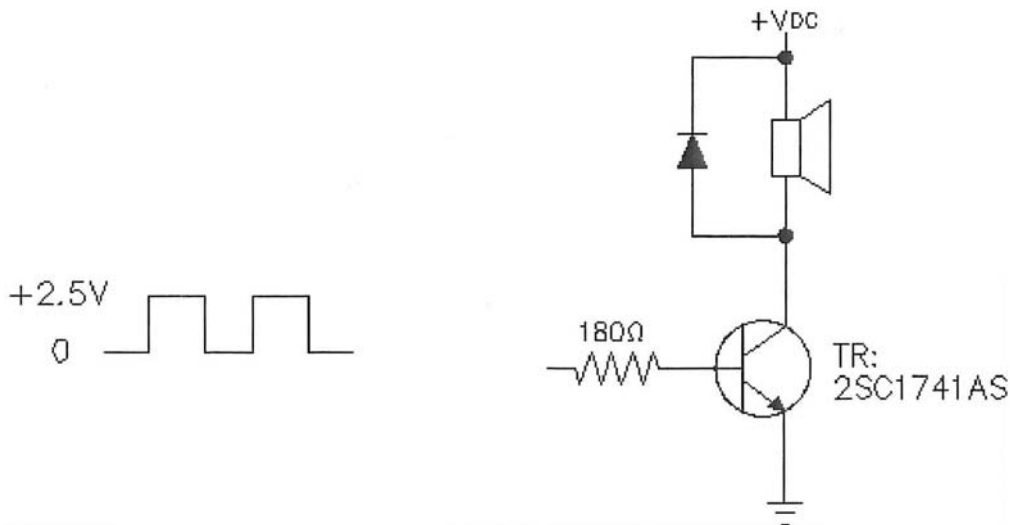
Specifications

| | | |
|-----------------------|--------------------------|---|
| Rated voltage | 1.5 Vo-p |  |
| Operating voltage | 1.0 - 1.7 Vo-p | |
| Mean current | 80 mA max. | |
| Coil resistance | 6 ±1 Ω | Applying rated voltage, 3000 Hz square wave, ½ duty |
| Coil impedance | 8 Ω | |
| Sound output | Min. 70 (Typical 77) dBA | Distance at 10cm (A-weight free air). Applying rated voltage of 3000 Hz, square wave, ½ duty. |
| Rated frequency | 3,000 Hz | |
| Operating temperature | -20 ~ +60° C | |
| Storage temperature | -30 ~ +70° C | |
| Dimensions | ø6.6 x H3.5 mm | See attached drawing |
| Weight | 0.4 g | |
| Material | PPO (Black) | |
| Terminal | Pin type (Au Plating) | See attached drawing |
| RoHS | yes | |

Frequency Response Curve



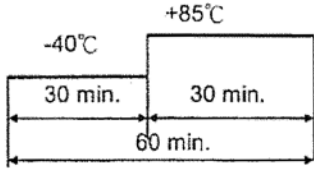
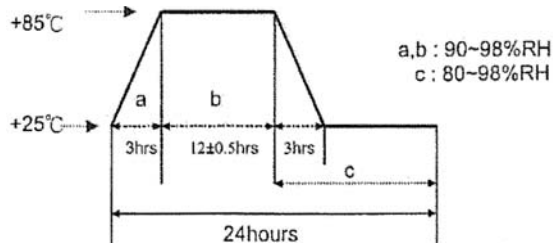
Appearance Drawing

 Tolerance: ± 0.5

Measurement Method


Mechanical Characteristics

| Item | Test Condition | Evaluation Standard |
|------------------------------|--|---|
| Solderability | Lead terminals are immersed in rosin for 5 seconds and then immersed in a solder bath of +270 ±5°C for 3 ±1 seconds. | 90% min. of lead terminals should be covered with fresh solder. (Except the edge of the terminal.) |
| Soldering Heat Resistance | Lead terminals are immersed in solder bath of +260 ±5°C for 3 ±1 seconds. | No in interference in operation. |
| Terminal Mechanical Strength | The force of 9.8 N (1.0 kg) should be applied to the terminals. | No damage or cutting off. |
| Vibration | The buzzer will be measured after applying a vibration amplitude of 1.5 mm with 10 to 55 Hz band of vibration frequency to each of the 3 perpendicular directions for 2 hours (6 hours total). | After the test, the part should meet specifications without any damage to the appearance and the SPL should be within ±10 dBA of the initial measurement. |
| Drop Test | The part is to be dropped from a height of 75 cm onto a 40 mm thick wooden board 3 times in 3 axis (X, Y, Z) for a total of 9 drops. | |

Environment Test

| Item | Test Condition | Evaluation Standard |
|----------------------|--|---|
| High temp. test | The part will be subjected to +70°C for 96 hours. | After the test, the part should meet specifications without any damage to the appearance or performance except SPL. After 4 hours at 25°C, the SPL should be within ±10 dBA of the initial measurement. |
| Low temp. test | The part will be subjected to -30°C for 96 hours | |
| Thermal shock | The part will be subjected to 10 cycles. One cycle will consist of: <div style="text-align: center;">  </div> | |
| Temp./Humidity cycle | The part shall be subjected to 10 cycles. One cycle will be 24 hours and consist of: <div style="text-align: center;">  </div> | |



Reliability Tests

| Item | Test Condition | Evaluation Standard |
|-----------------------|--|---|
| Operating (Life Test) | 1. Continuous life test: The part will be subjected to 72 hours at 45°C with 1.5 V, 3000 Hz applied. 2. Intermittent life test: A duty cycle of 1 minute on, 1 minute off, a minimum of 10,000 times at room temp. (+25 ±10°C) with 1.5 V, 3000 Hz applied. | After the test, the part should meet specifications without any damage to the appearance or performance except SPL. After 4 hours at 25°C, the SPL should be within ±10 dBA of the initial measurement. |

Test Conditions

| | | | |
|--------------------------|----------------------------|-----------------------|------------------------------|
| Standard Test Condition | a) Temperature: +5 ~ +35°C | b) Humidity: 45 - 85% | c) Pressure: 860 - 1060 mbar |
| Judgement Test Condition | a) Temperature: +25±2°C | b) Humidity: 60 - 70% | c) Pressure: 860 - 1060 mbar |

Packaging

Each minimum package of products will be in a carton box and it should be clearly marked with the Part Number, Quantity, and Outgoing Inspection Number. There should be no mechanical damage to the products during transportation and/or in storage.