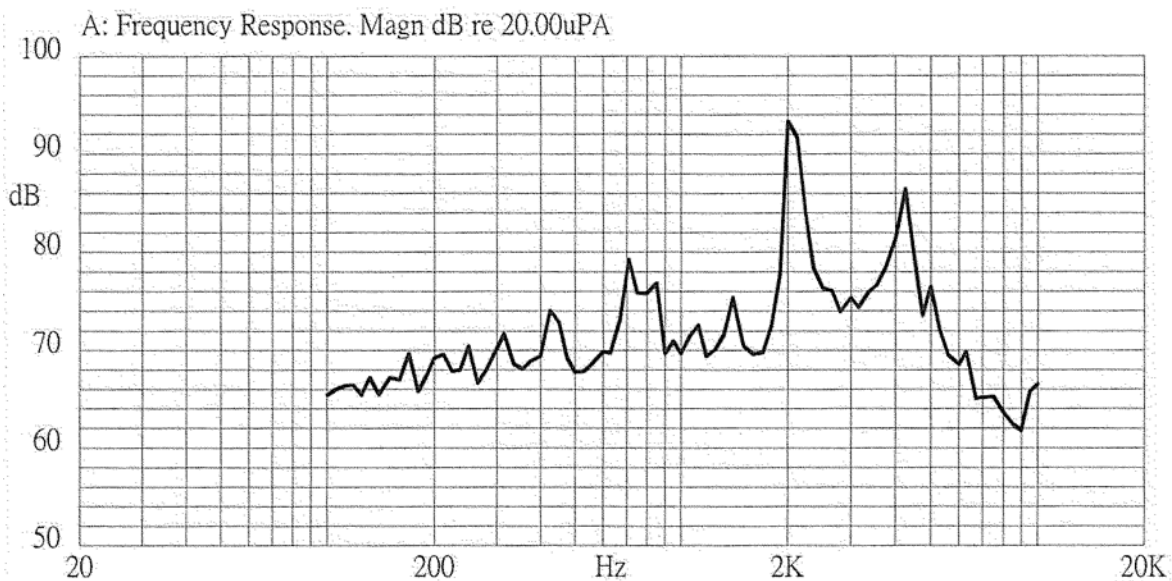


**Specifications**

|                       |                              |                                                                                                 |
|-----------------------|------------------------------|-------------------------------------------------------------------------------------------------|
| Rated voltage         | 5.0 Vo-p                     |              |
| Operating voltage     | 3.0 - 8.0 Vo-p               |                                                                                                 |
| Mean current          | 45 mA max.                   |                                                                                                 |
| Coil resistance       | 47 $\pm$ 7.0 $\Omega$        | Applying rated voltage, 2400 Hz square wave, 1/2 duty                                           |
| Sound output          | Min. 85 (Typical 92) dBA     | Distance at 10cm (A-weight free air). Applying rated voltage of 2400 Hz, square wave, 1/2 duty. |
| Rated frequency       | 2,400 Hz                     |                                                                                                 |
| Operating temperature | -30 ~ +70° C                 |                                                                                                 |
| Storage temperature   | -40 ~ +85° C                 |                                                                                                 |
| Dimensions            | $\varnothing$ 12.0 x H9.5 mm | See attached drawing                                                                            |
| Weight                | 1.6 g                        |                                                                                                 |
| Material              | PBT (Black)                  |                                                                                                 |
| Terminal              | Pin type (Plating Au)        | See attached drawing                                                                            |
| RoHS                  | yes                          |                                                                                                 |

**Frequency Response Curve**



**CUI INC**

Part No: CEM-1206S

Description: magnetic buzzer

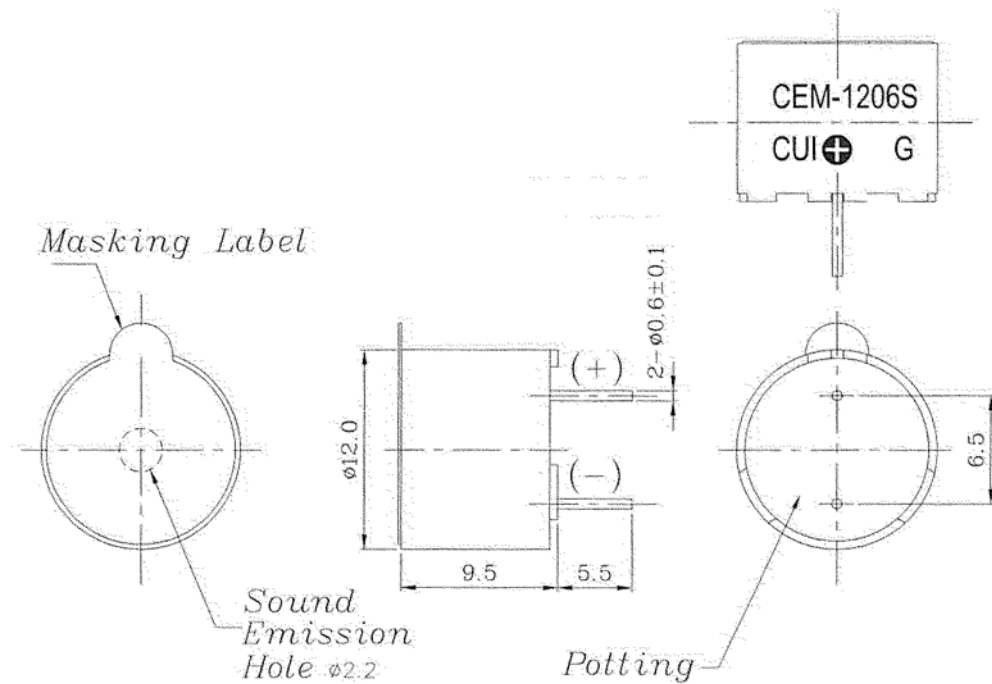
Date: 8/14/2006

Unit: mm

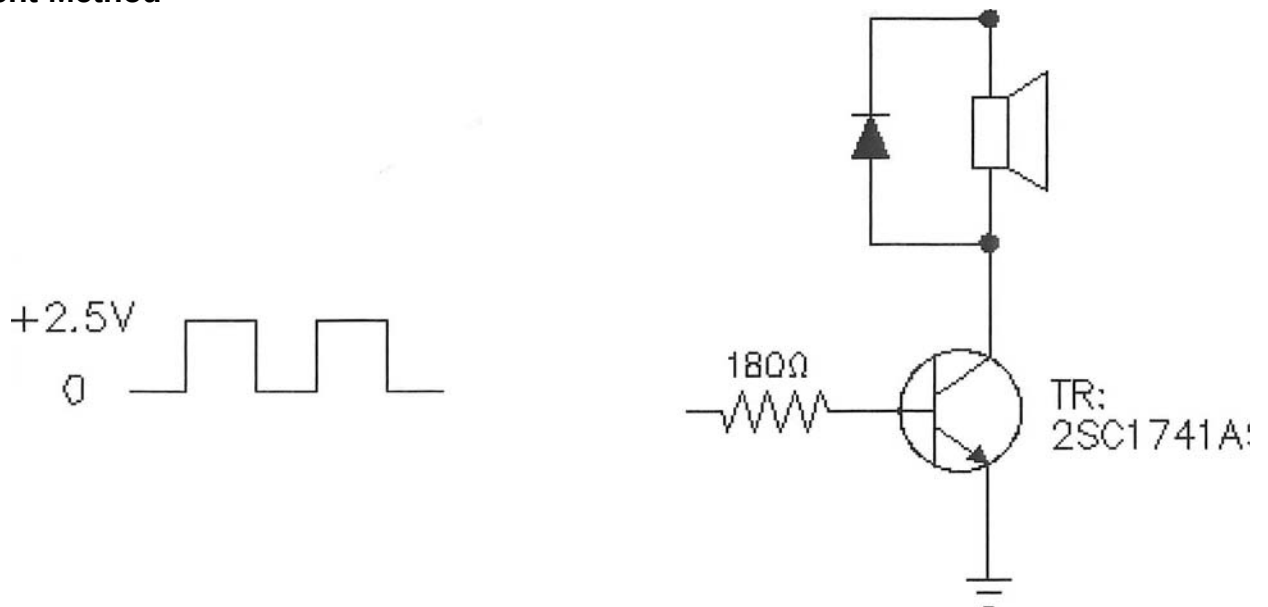
Page No: 2 of 5

## Appearance Drawing

Tolerance:  $\pm 0.5$



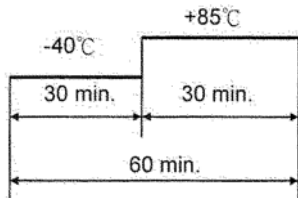
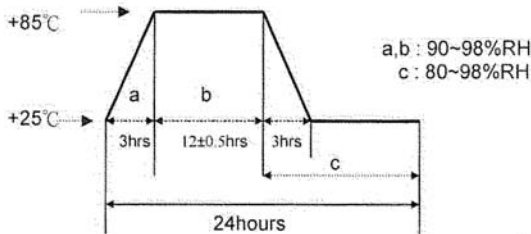
## Measurement Method



## Mechanical Characteristics

| Item                         | Test Condition                                                                                                                                                                 | Evaluation Standard                                                                                                                                    |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solderability                | Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $270 \pm 5^{\circ}\text{C}$ for $3 \pm 1$ seconds.                                      | 90% min. of lead terminals should be wet with solder. (Except the edge of the terminal)                                                                |
| Soldering Heat Resistance    | Lead terminals are immersed up to 1.5mm from the buzzer's body in solder bath of $260 \pm 5^{\circ}\text{C}$ for $3 \pm 1$ seconds.                                            | No in interference in operation.                                                                                                                       |
| Terminal Mechanical Strength | Apply force of 9.8 N (1.0 kg) to the terminal for 10 seconds.                                                                                                                  | 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. | After the test, the part should meet specifications without any damage to the appearance and the SPL should be within $\pm 10$ dBA of the initial SPL. |
| 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 $+85^{\circ}\text{C}$ for 96 hours.                                                                                                                | After the test, the part shall meet specifications without any damage to the appearance and performance except SPL. After 4 hours at $+25^{\circ}\text{C}$ , the SPL should be within $\pm 10$ dBA of the initial SPL. |
| Low temp. test       | The part will be subjected to $-40^{\circ}\text{C}$ for 96 hours                                                                                                                 |                                                                                                                                                                                                                        |
| Thermal shock        | The part will be subjected to 10 cycles. One cycle will consist of:<br><br>                   |                                                                                                                                                                                                                        |
| Temp./Humidity cycle | The part shall be subjected to 10 cycles. One cycle will be 24 hours and consist of:<br><br> |                                                                                                                                                                                                                        |

**Reliability Tests**

| <b>Item</b>           | <b>Test Condition</b>                                                                                                                                                                                                                                                       | <b>Evaluation Standard</b>                                                                                                                                                                       |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating (Life Test) | <p>1. Continuous life test:<br/>The part will be subjected to 72 hours at 55°C with 5 V, 2400 Hz applied.</p> <p>2. Intermittent life test:<br/>A duty cycle of 1 minute on, 1 minute off, a minimum of 10,000 times at room temp. (25±10°C) with 5 V, 2400 Hz applied.</p> | After the test, the part shall meet specifications without any damage to the appearance and performance except SPL. After 4 hours at +25°C, the SPL should be within ±10 dBA of the initial SPL. |

**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 |



**CUI INC**

Part No: CEM-1206S

Description: magnetic buzzer

Date: 8/14/2006

Unit: mm

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## Packaging

