



Part No: CEM-1201S

Description: magnetic buzzer

Date: 9/06/2006

Unit: mm

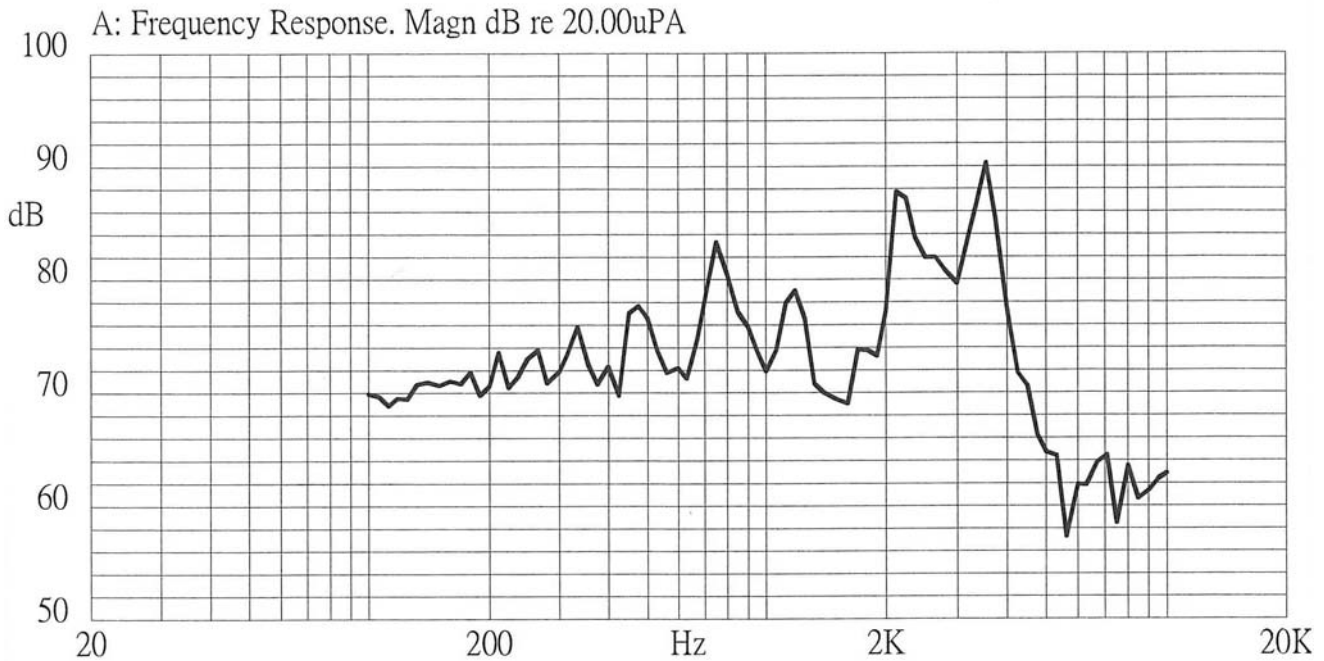
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Specifications

| | | |
|-----------------------|--------------------------|---|
| Rated voltage | 1.5 Vo-p | |
| Operating voltage | 1.0 - 3.0 Vo-p | |
| Mean current | 40 mA max. | |
| Coil resistance | 16 ±3 Ω | Applying rated voltage, 2400 Hz square wave, ½ duty |
| Sound output | Min. 80 (Typical 88) 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 | -20 ~ +60° C | |
| Storage temperature | -30 ~ +70° C | |
| Dimensions | ø12.0 x H9.5 mm | See attached drawing |
| Weight | 1.6 g | |
| Material | PBT (Black) | |
| Terminal | Pin type (Au Plating) | See attached drawing |
| RoHS | yes | |

Frequency Response Curve





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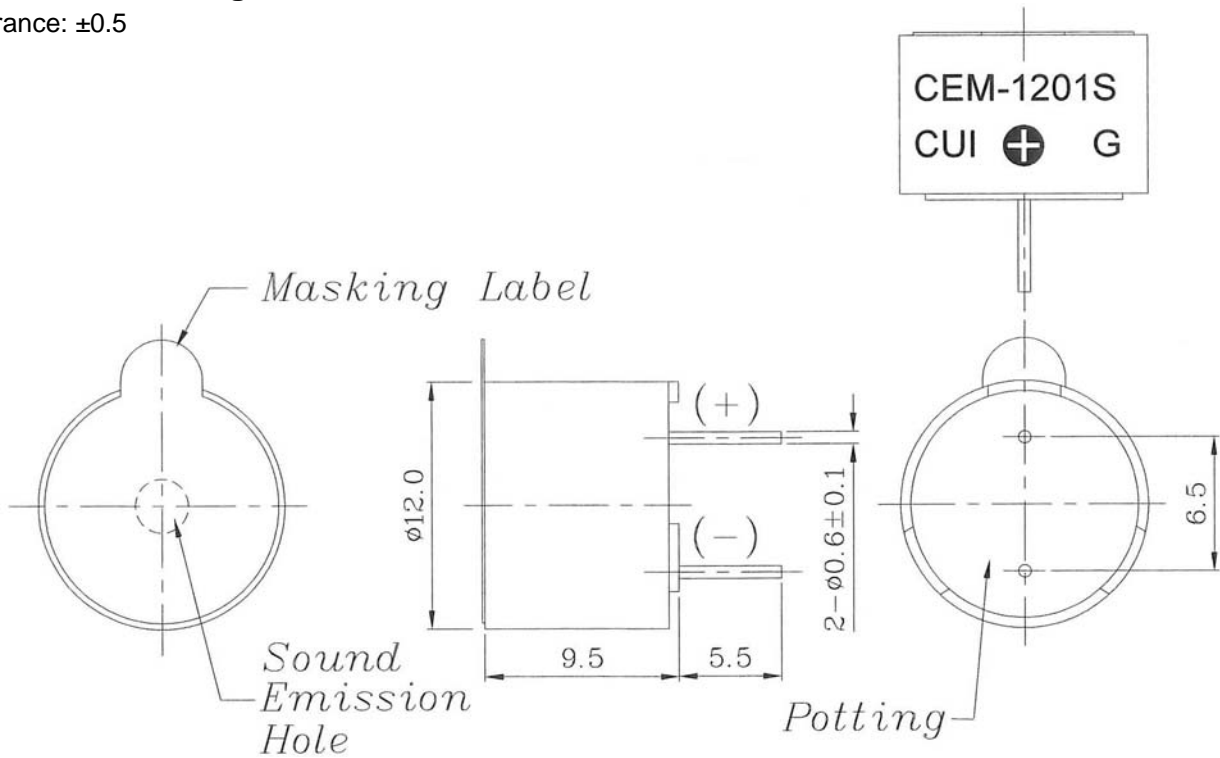
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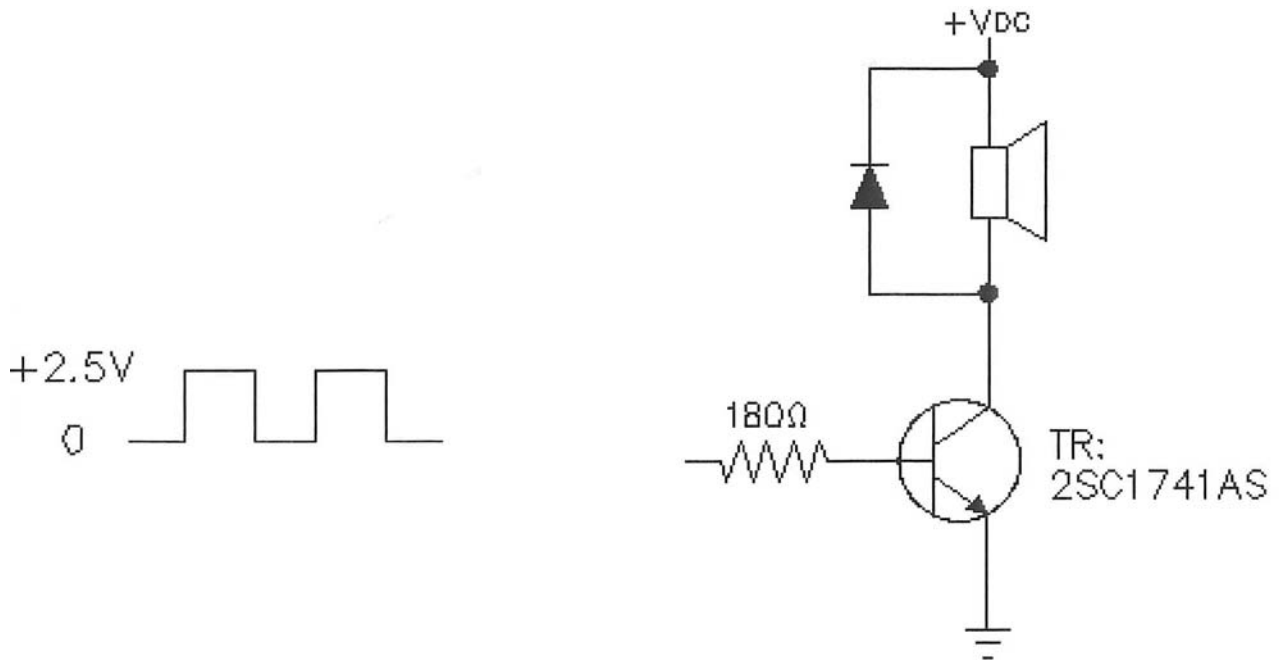
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Appearance Drawing

Tolerance: ± 0.5



Measurement Method





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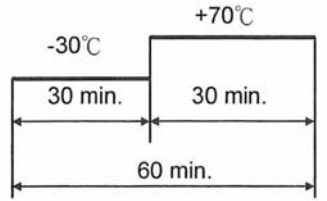
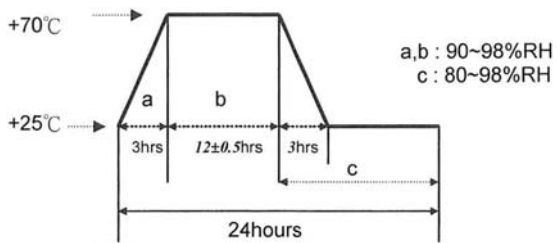
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Mechanical Characteristics

| Item | Test Condition | Evaluation Standard |
|------------------------------|---|--|
| Solderability | Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of 270 ±5°C for 3 ±1 seconds. | 90% surface 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 a solder bath of 260 ±5°C for 3 ±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 in each axial direction. | No damage or cutting off. |
| Vibration | The buzzer will be measured after applying a vibration amplitude of 1.5mm 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 performance. The SPL should be within ±10 dBA when compared to 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 shall meet specifications without any damage to the appearance except SPL. After 4 hours at +25°C, the SPL should be within ±10 dBA of the initial SPL. |
| 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:  | |
| Temp./Humidity cycle | The part shall be subjected to 10 cycles. One cycle will be 24 hours and consist of:  | |



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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, 2400 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, 2400 Hz applied. | After the test, the part shall meet specifications without any damage to the appearance. 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 |



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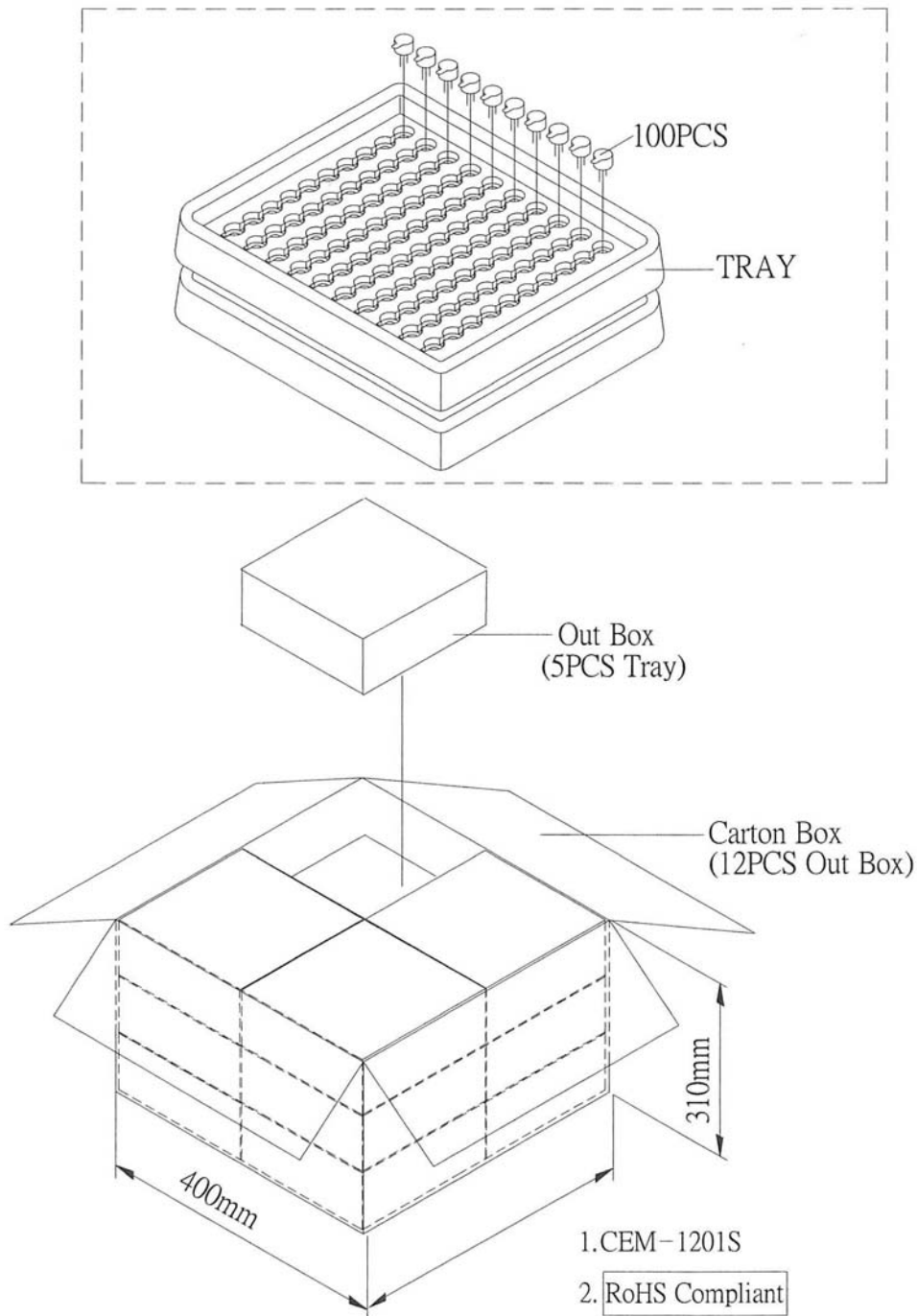
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Packaging



| | | |
|------------|-------------------|----------------------|
| Tray | 184mmx184mmx23mm | 1x100PCS=100PCS |
| Out Box | 200mmx190mmx100mm | 5LAYERx100PCS=500PCS |
| Carton Box | 440mmx400mmx310mm | 500PCSx12=6000PCS |