



Part No: CCG-1206

Description: magnetic buzzer


Date: 3/19/2007

Unit: mm

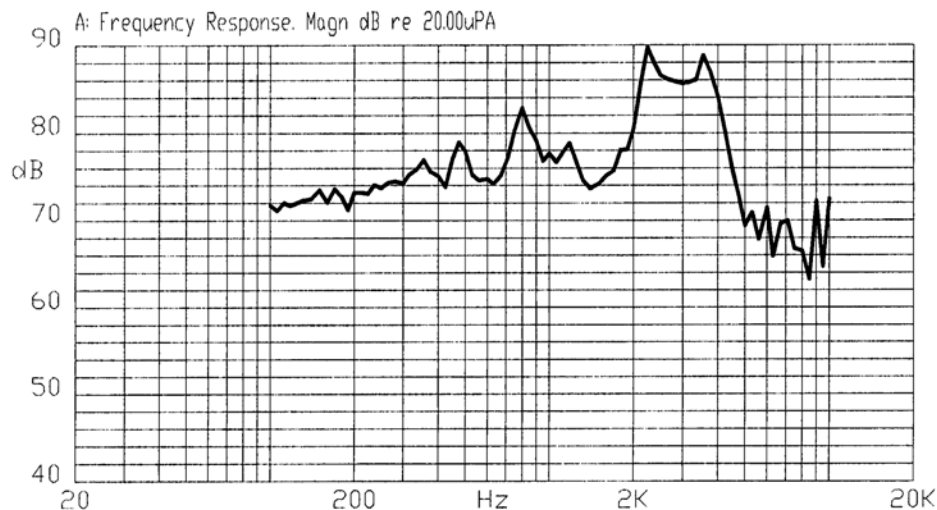
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### Specifications

|                       |                          |  |
|-----------------------|--------------------------|--|
| Rated voltage         | 5 Vo-p                   |               |
| Operating voltage     | 4.0 - 8.0 Vo-p           |  |
| Mean current          | 50 mA max.               |  |
| Coil resistance       | 40 ± 6 Ω                 | Applying rated voltage, 2400 Hz square wave, ½ duty  |
| Sound output          | Min. 85 (Typical 91) dBA | Distance at 10cm (A-weight free air).<br>Applying rated voltage of 2400 Hz, square wave, ½ duty. |
| Rated frequency       | 2,400 Hz                 |  |
| Operating temperature | -30 ~ +70° C             |  |
| Storage temperature   | -40 ~ +85° C             |  |
| Dimensions            | ø12 x H10 mm             | See attached drawing   |
| Weight                | 1.6 g                    |  |
| Material              | PBT+15% (Black)          |  |
| Terminal              | Pin type (Au Plating)    | See attached drawing   |
| RoHS                  | yes                      |  |

### Frequency Response Curve





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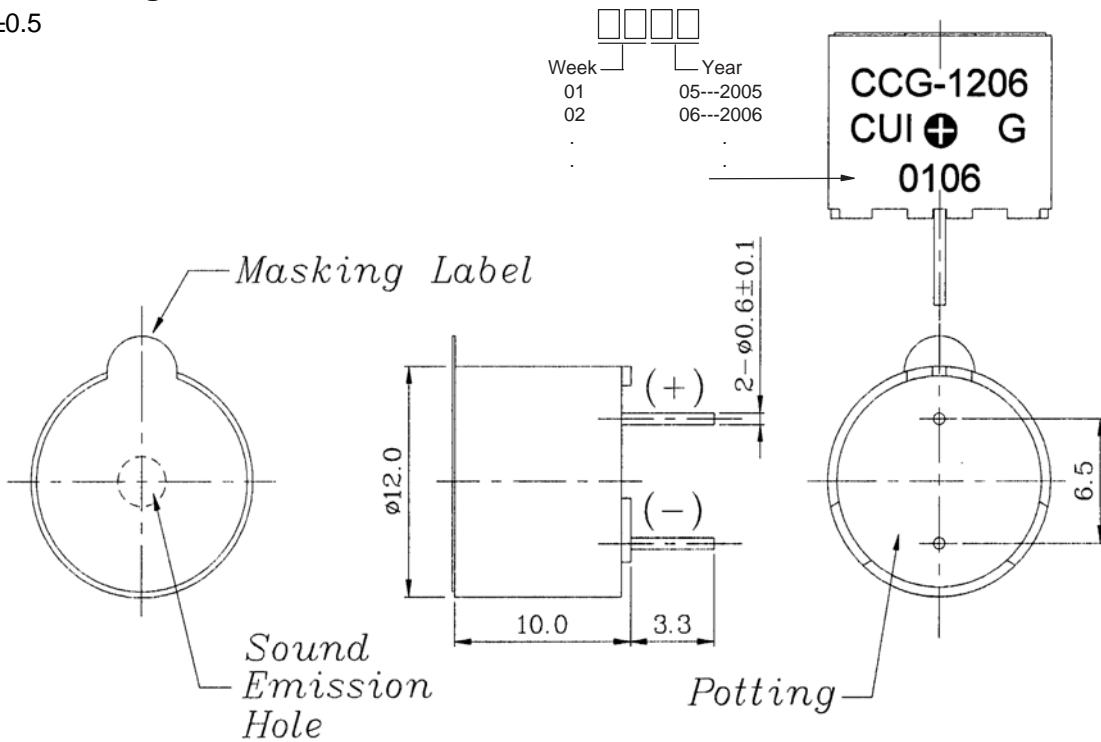
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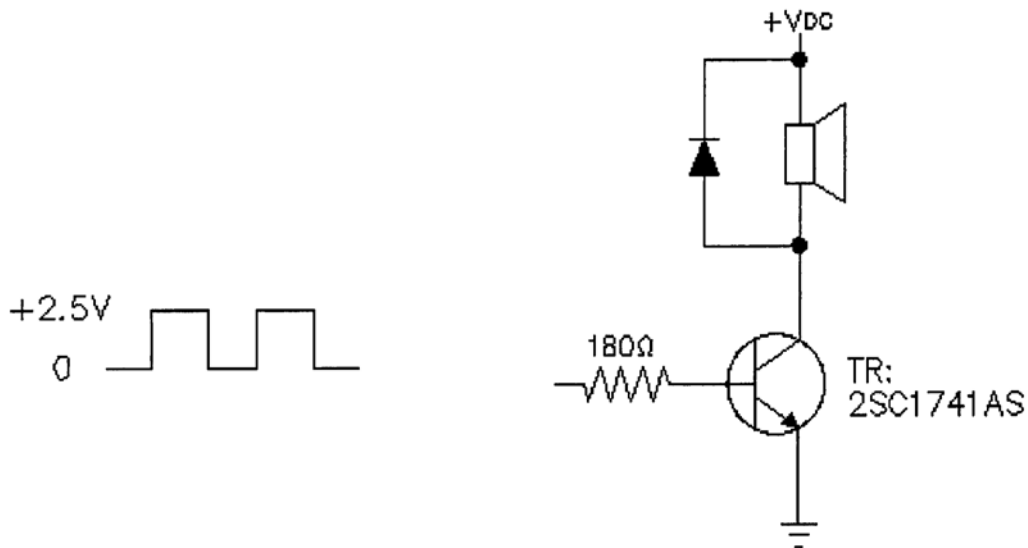
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### Appearance Drawing

Tolerance:  $\pm 0.5$



### Measurement Method





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### Mechanical Characteristics

| Item                         | Test Condition  | Evaluation Standard   |
|------------------------------|---|---|
| Solderability                | Lead terminals are 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 9.8N (1.0kg) should be applied to each terminal in each axial direction.   | 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 ±10 dBA of the initial measurement. |
| Drop Test                    | The part should 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°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 -40°C for 96 hours  |   |
| Thermal shock        | The part will be subjected to 10 cycles. One cycle will consist of: <div style="text-align: center;"> <p>The diagram shows a thermal shock cycle. It starts at -40°C for 30 minutes, then transitions to +85°C for 30 minutes. The total duration of one cycle is 60 minutes.</p> </div>  |   |
| Temp./Humidity cycle | The part shall be subjected to 10 cycles. One cycle should last 24 hours and will consist of: <div style="text-align: center;"> <p>The diagram shows a temperature and humidity cycle. It starts at +25°C for 3 hours (labeled 'a'), then ramps up to +85°C for 12 ± 0.5 hours (labeled 'b'), then ramps down to +25°C for 3 hours (labeled 'c'). The total duration of one cycle is 24 hours. Humidity levels are specified as: a, b : 90~98%RH and c : 80~98%RH.</p> </div> |   |



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### Reliability Tests

| Item                  | Test Condition   | Evaluation Standard  |
|-----------------------|--|--|
| Operating (Life Test) | 1. Continuous life test:<br>The part will be subjected to 72 hours at 55°C with 5 V, 2400 Hz applied.<br><br>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. | 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 80 dBA or more. |

### 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

