



Part No: CX-1606C

Description: magnetic buzzer

Date: 1/30/2006

Unit: mm

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## SCOPE

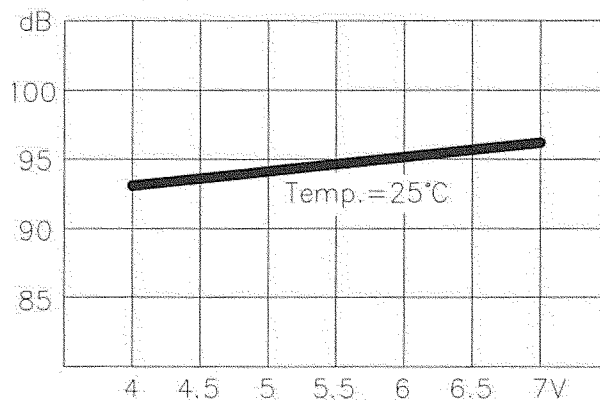
This specification applies to magnetic buzzer, CX-1606C

## SPECIFICATION

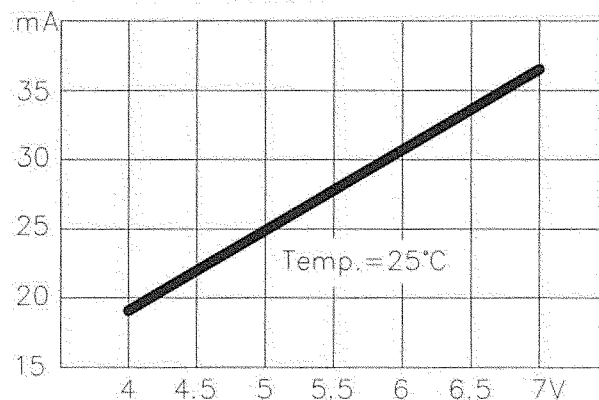
| No. | Item                                | Unit            | Specification            | Condition                            |
|-----|-------------------------------------|-----------------|--------------------------|--------------------------------------|
| 1   | Rated Voltage                       | V <sub>DC</sub> | 6.0                      |                                      |
| 2   | Operating Volt.                     | V <sub>DC</sub> | 4.0~7.0                  |                                      |
| 3   | Mean Current                        | mA              | Max. 50                  |                                      |
| 4   | Sound Output                        | dBA             | Min.85<br>(Typical 92)   | Distance at 10cm(A-weight free air). |
| 5   | Resonant Frequency                  | Hz              | 2200 ± 300               |                                      |
| 6   | Operating Temp.                     | °C              | -20 ~ +60                |                                      |
| 7   | Storage Temp.                       | °C              | -30 ~ +70                |                                      |
| 8   | Dimension                           | mm              | φ 16.0 × H14.0           | See attached drawing.                |
| 9   | Weight                              | gram            | 7.0                      |                                      |
| 10  | Material                            |                 | PPO (Black)              |                                      |
| 11  | Terminal                            |                 | Pin type<br>(Plating Au) | See attached drawing.                |
| 12  | Environmental Protection Regulation |                 | RoHS                     |                                      |

## TYPICAL FREQUENCY RESPONSE CURVE

### VOLTAGE-SOUND PRESSURE LEVEL



### VOLTAGE-CURRENT CONSUMPTION





**CUI INC**

Part No: CX-1606C

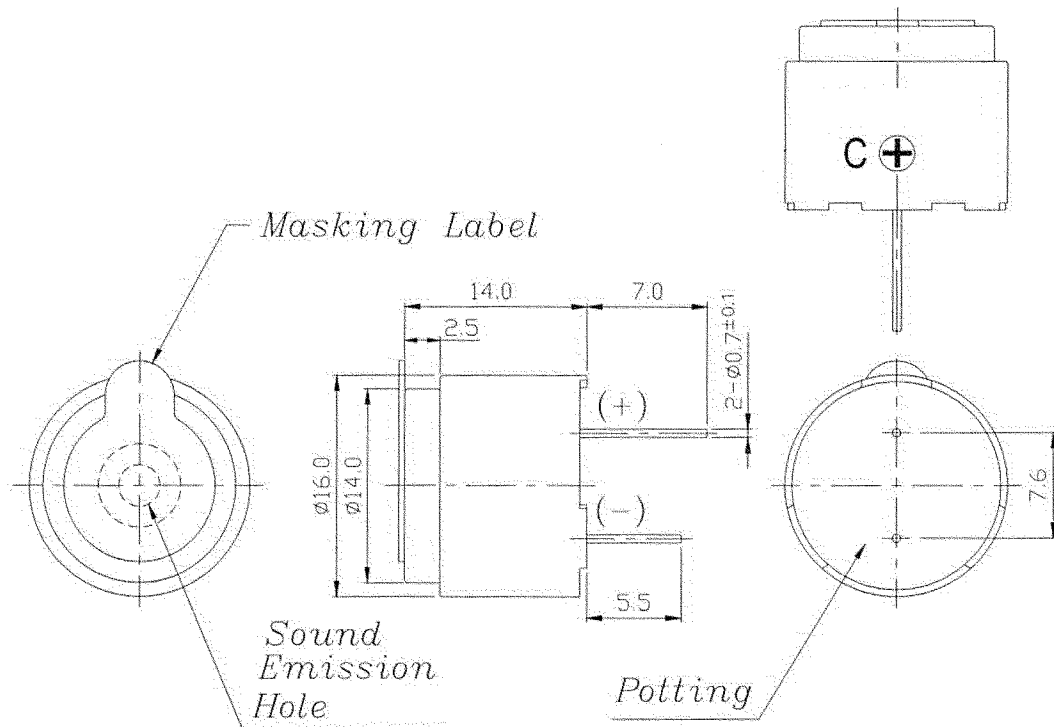
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## APPEARANCE DRAWING

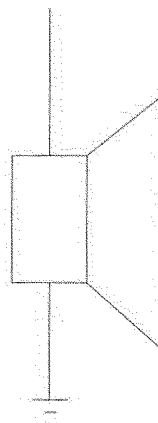


**Tol:  $\pm 0.5$**

**Unit: mm**

## MEASUREMENT METHOD

+V DC





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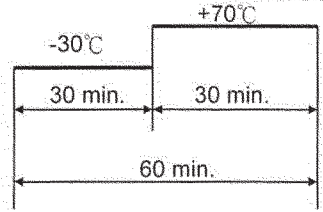
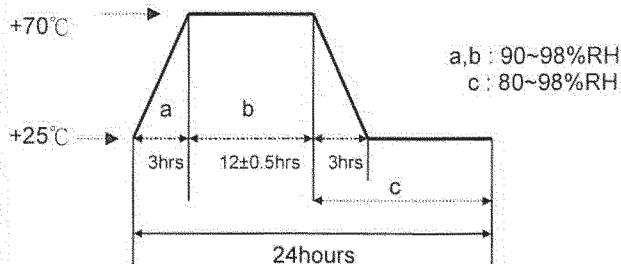
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**MECHANICAL CHARACTERISTICS**

| No. | Item                         | Test condition                                                                                                                                                               | Evaluation standard                                                                                                                                        |
|-----|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Solderability <sup>1</sup>   | Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+270\pm5^{\circ}\text{C}$ for $3\pm1$ seconds.                                       | 90% min. lead terminals shall be wet with solder. (Except the edge of terminal)                                                                            |
| 2   | Soldering Heat Resistance    | Lead terminal are immersed up to 1.5mm from sounder's body in solder bath of $+260\pm5^{\circ}\text{C}$ for $3\pm1$ seconds.                                                 | No interference in operation                                                                                                                               |
| 3   | Terminal Mechanical Strength | The force 10 seconds of 9.8N (1.0kg) is applied to each terminal in axial direction.                                                                                         | No damage and cutting off                                                                                                                                  |
| 4   | Vibration                    | Buzzer shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours. | After the test the part shall meet specifications with-out any damage in appearance and the SPL should be in $\pm 10\text{dBA}$ compared with initial one. |
| 5   | Drop test                    | 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).                                         |                                                                                                                                                            |

Notes: 1. Not recommended for wave soldering

**ENVIRONMENT TEST**

| No. | Item                  | Test condition                                                                                                                                                                | Evaluation standard                                                                                                                                                                                                              |
|-----|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | High temp. test       | After being placed in a chamber at $+70^{\circ}\text{C}$ for 96 hours.                                                                                                        | After the test the part shall meet specifications with-out any degradation in appearance and performance except SPL. after 4 hours at $+25^{\circ}\text{C}$ . the SPL should be in $\pm 10\text{dBA}$ compared with initial one. |
| 2   | Low temp. test        | After being placed in a chamber at $-30^{\circ}\text{C}$ for 96 hours.                                                                                                        |                                                                                                                                                                                                                                  |
| 3   | Thermal Shock         | The part shall be subjected to 10 cycles. One cycle shall consist of;<br>                  |                                                                                                                                                                                                                                  |
| 4   | Temp./ Humidity Cycle | The part shall be subjected to 10 cycles. One cycle shall be 24 hours and consist of;<br> |                                                                                                                                                                                                                                  |

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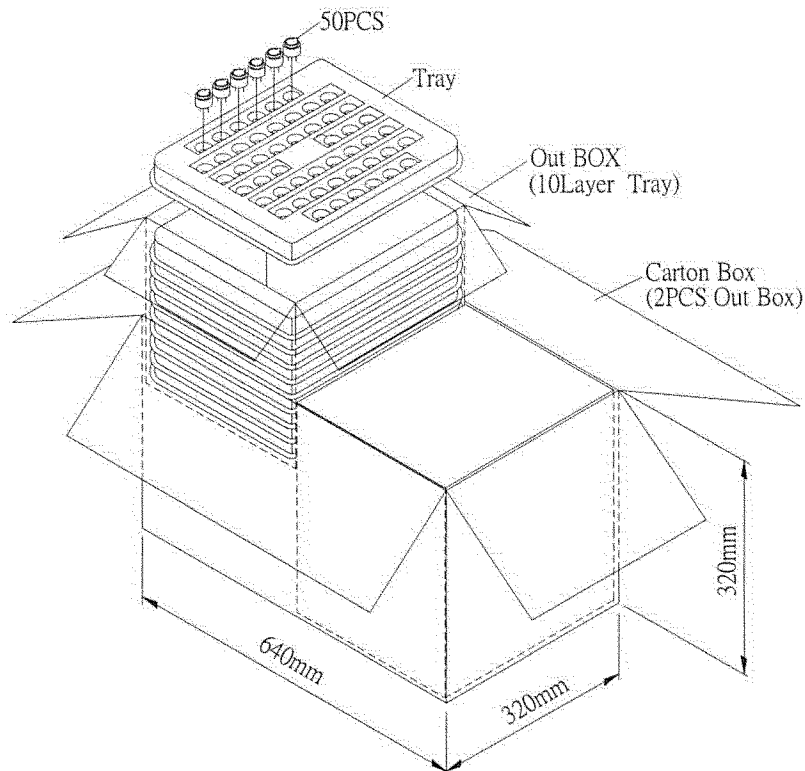
**RELIABILITY TEST**

| No. | Item                | Test condition                                                                                                                                                                                                                                      | Evaluation standard                                                                                                                                                                                 |
|-----|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Operating life test | 1. Continuous life test<br>The part shall be subjected to 72 hours at +45°C with 6VDC applied.<br><br>2. Intermittent life test<br>A duty cycle of 1 minute on, 1 minutes off, a minimum of 10000 times at room temp.( +25±10°C) with 6VDC applied. | After the test the part shall meet specifications with-out any degradation in appearance and performance except SPL. after 4 hours at +25°C. the SPL should be in ±10dBA compared with initial one. |

**TEST CONDITION.**

Standard Test Condition : a) Temperature : +5 ~ +35°C b) Humidity : 45-85% c) Pressure : 860-1060mbar

Judgement Test Condition : a) Temperature : +25 ± 2°C b) Humidity : 60-70% c) Pressure : 860-1060mbar

**PACKING STANDARD**

|            |                   |                      |
|------------|-------------------|----------------------|
| Tray       | 280mmx280mmx22mm  | 1x50PCS=50PCS        |
| Out Box    | 310mmx310mmx310mm | 10LAYERx50PCS=500PCS |
| Carton Box | 640mmx320mmx320mm | 500PCSx2=1000PCS     |