Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


## Contact us

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CUI INC

**Part No: CDMG13008L-02**

**Description: micro dynamic speaker**

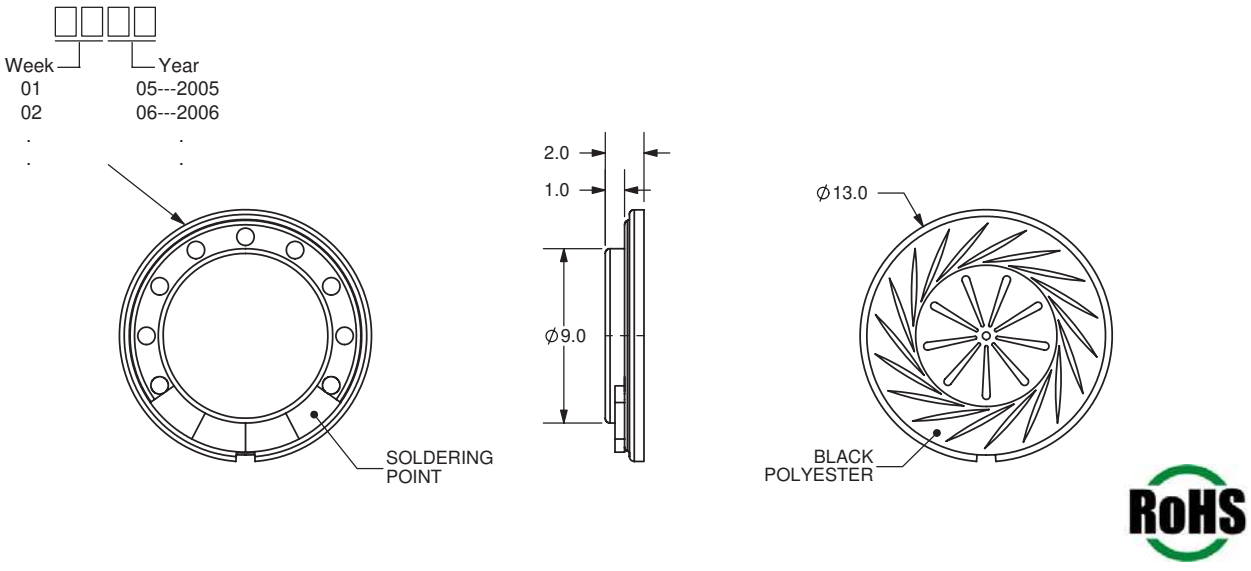
**Date: 10/18/2006**
**Unit: mm**


## Specifications

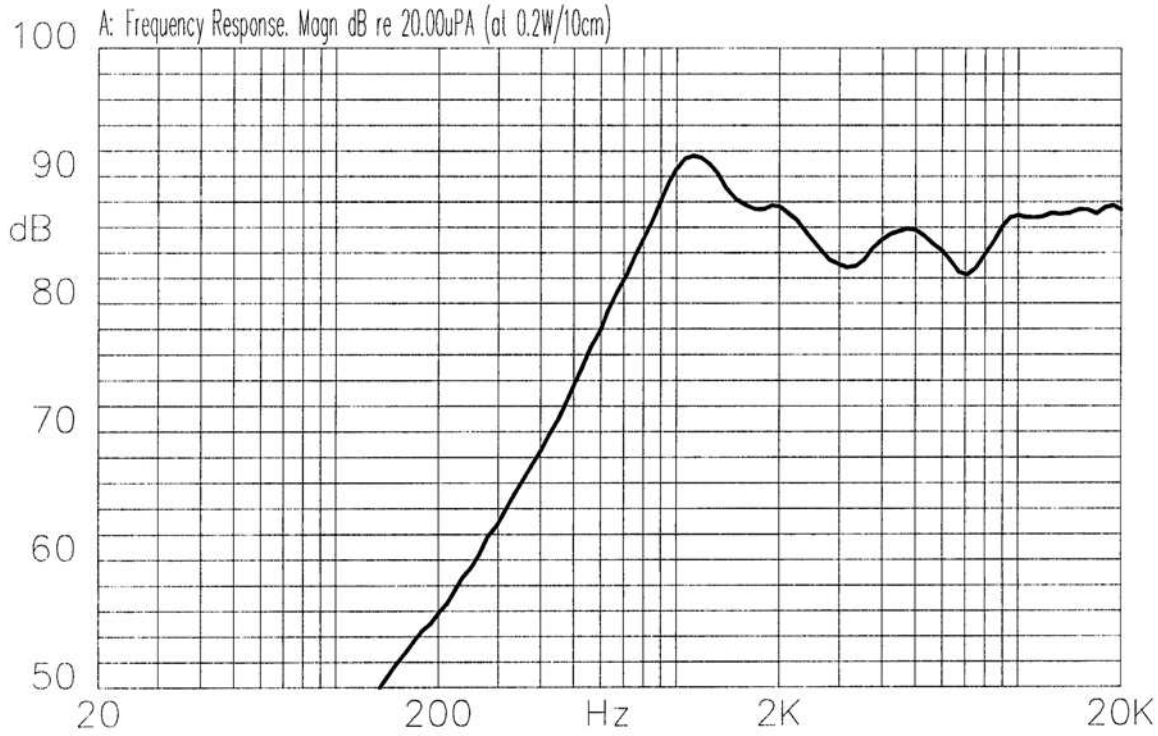
| | | | |
|---|---|---|---|
| Dimensions | ø13.0 x 2.0 mm | | |
| Impedance | 8 Ohm ± 15% | at | 1.5 KHz 1 V |
| Resonant frequency | 1050 Hz ± 20% | at | 1 V |
| Sound pressure level | 86 dB/w ± 3 dB | 0.2 w 10 cm at 1.5K, 2.0K, 2.5K, 3.0K Hz | |
| | 75 dB/w ± 3 dB | 1 w 1m at 1.5K, 2.0K, 2.5K, 3.0K Hz | |
| Response | Fo Hz ~ 20 KHz max. | | |
| Distortion | 10% max. | at 1.5 KHz 0.2W | |
| Input power | Nominal 0.2 W | Handling capacity | 0.4 W |
| Operation | must be normal at program source 0.2 W | | |
| Buzz, rattle, etc. | must be normal at sine wave 1.26 V | | |
| Magnet | ø7.0 x 0.7 (Nd-Fe-B) | | |
| Operating temp. | -20 ~ +55°C | | |
| Weight | 0.7 g | | |
| Material | Metal | | |
| RoHS | yes | | |

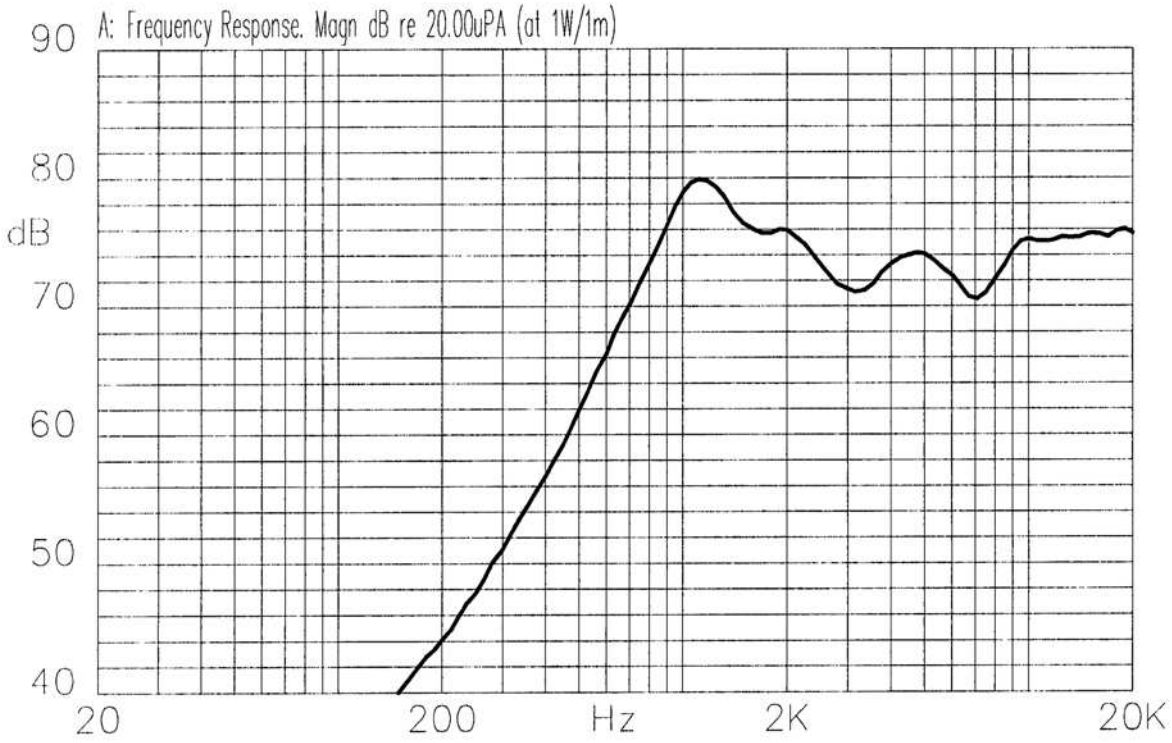
## Mechanical Drawing

Tolerance: ±0.3

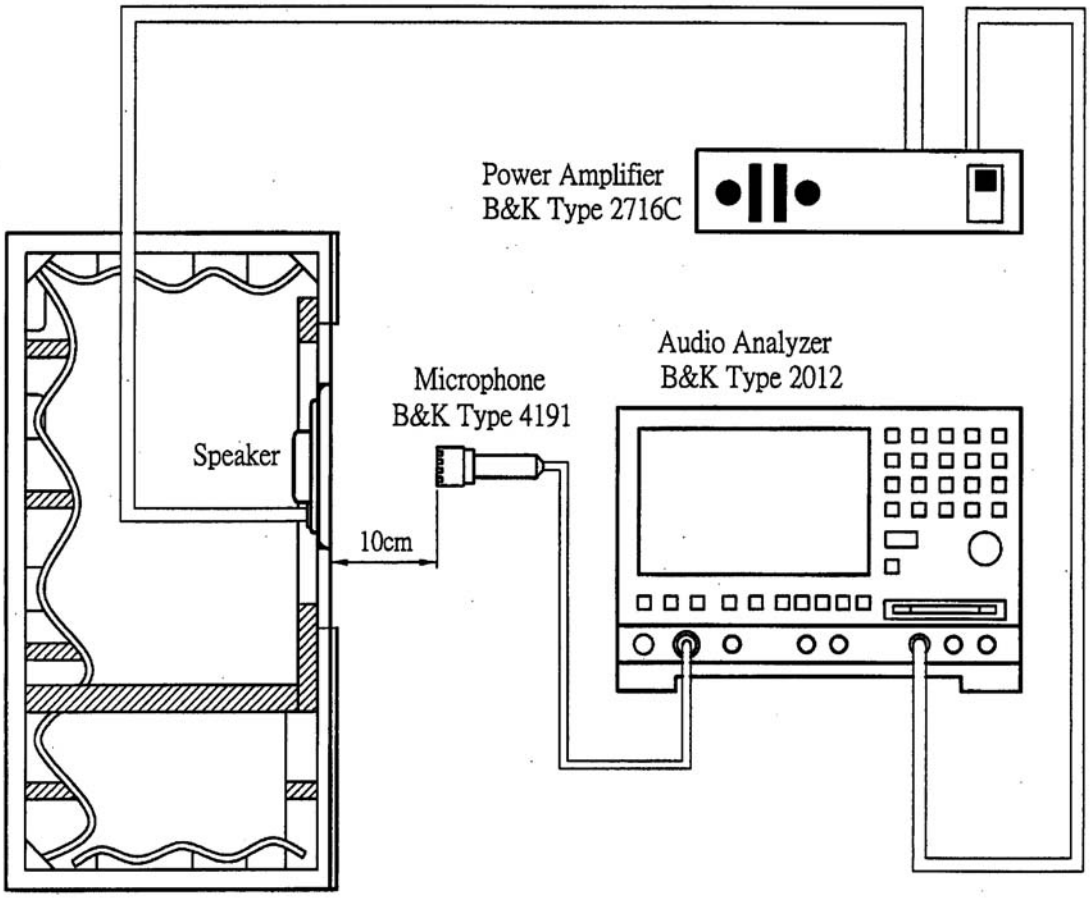


## Frequency Response Curve



## Measurement Circuit

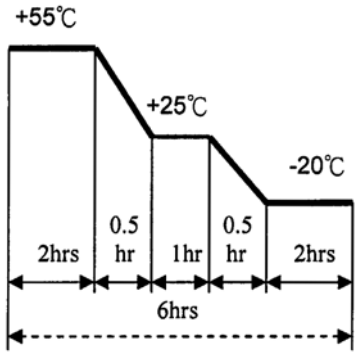



JIS C5531
940mm x 640mm x 1240mm

## Mechanical Characteristics

| Item | Test Condition | Evaluation Standard |
|---|---|---|
| PCB Wire Pull Strength | The pull force should be applied to double lead wire:<br>Horizontal 3.0N (0.306kg) for 30 seconds | No damage or cutting off. |
| Vibration | The speaker should 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. | No obstacle will be harmful to normal operation; damage, cracks, rust, and distortions. Should not be audible at 1.26 V sine wave between Fo ~ 20 KHz. |
| Drop Test | The part will be dropped, contained inside a normal box, from a height of 75 cm onto a 40 mm thick wooden board 10 times. | |

## Environment Test

| Item | Test Condition | Evaluation Standard |
|---|---|---|
| High temp. test | After being placed in a chamber at 55°C for 96 hours. | The speaker will be measured after being placed at +25°C for 6 hours. No obstacle will be harm ful to normal operation; damage, cracks, rust, and distortions. Should not be audible at 1.26 V sine wave between Fo ~ 20 KHz. The SPL should be within ±3dB compared to the initial measurements. |
| Low temp. test | After being placed in a chamber at -20°C for 96 hours. | |
| Humidity test | After being placed in a chamber at +40°C and 90% relative humidity for 240 hours. | |
| Temp. cycle test | The part shall be subjected to 5 cycles. One cycle will consist of:<br>  <br> | |

## Reliability Test

| Item | Test Condition | Evaluation Standard |
|---|---|---|
| Load Test | 0.2 W white noise, applied for 96 hours, at room temperature. | The speaker will be measured after being placed at +25°C for 6 hours. No obstacle will be harm ful to normal operation; damage, cracks, rust, and distortions. Should not be audible at 1.26 V sine wave between Fo ~ 20 KHz. The SPL should be within ±3dB compared to the initial measurements. |

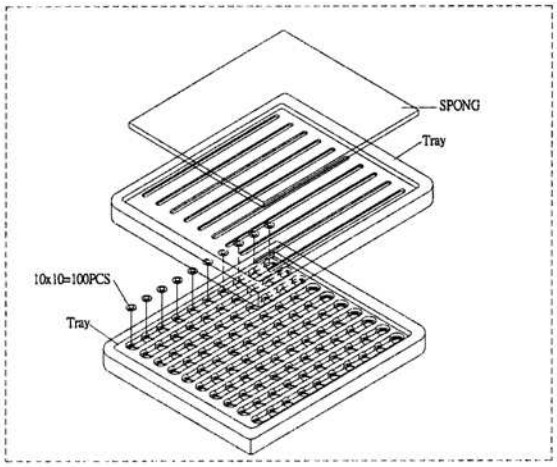
## Test Conditions

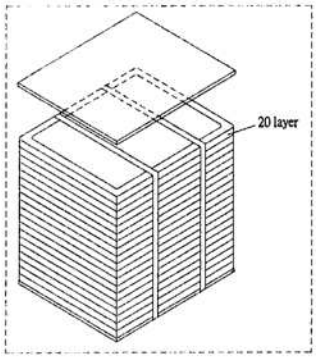
| | | | |
|---|---|---|---|
| Standard Test Condition | a) Tempurature: +5 ~ +35°C | b) Humidity: 45 - 85% | c) Pressure: 860-1060 mbar |
| Judgement Test Condition | a) Tempurature: +25 ±2°C | b) Humidity: 60 - 70% | c) Pressure: 860-1060 mbar |

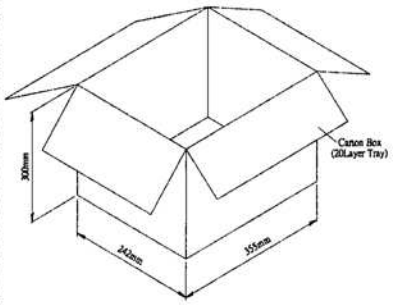
## Recommended Temperature Profile for Hand Soldering

| Hand Soldering |
|---|
| 370±10℃ / 3±1 Sec |

## Packaging




| | | |
|---|---|---|
| Tray | 350mmx235mmx20mm | 1x100PCS=100PCS |
| Carton Box | 355mmx242mmx300mm | 100PCSx20=2,000PCS |