

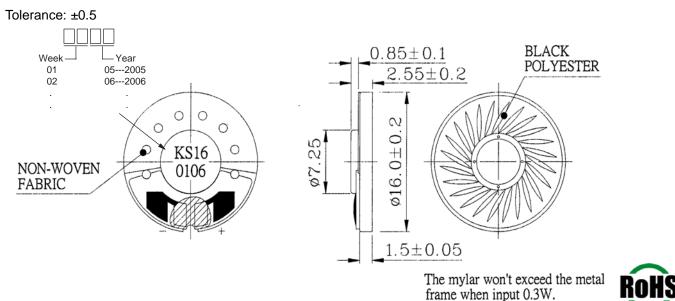
Description: micro dynamic speaker

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## **Specifications**

| Dimensions           | ø16.0 x 2.55 mm   |  |  |
|----------------------|---|--|--|
| Impedance            | 8 Ohm ± 15% at 1.0 KHz 1 V                              |  |  |
| Resonant frequency   | 600 Hz ± 20% at 1 V                                     |  |  |
| Sound pressure level | 82 dB/w ± 3 dB 0.3 w 10 cm at 1.0K, 1.2K, 1.5K, 2.0K Hz |  |  |
| -                    | 69 dB/w ± 3 dB 1 w 1m at 1.0K, 1.2K, 1.5K, 2.0K Hz      |  |  |
| Response             | Fo Hz ~ 20 KHz max.                                     |  |  |
| Distortion           | 10% max. at 1.0 KHz 0.3W                                |  |  |
| Input power          | Nominal 0.3 W Handling capacity 0.5 W                   |  |  |
| Operation            | must be normal at program source 0.3 W                  |  |  |
| Buzz, rattle, etc.   | must be normal at sine wave 1.55 V                      |  |  |
| Magnet               | Nd-Fe-B   |  |  |
| Operating temp.      | -20 ~ +55°C   |  |  |
| Weight               | 1.5 g   |  |  |
| Material             | Metal   |  |  |
| RoHS                 | yes   |  |  |

## **Mechanical Drawing**

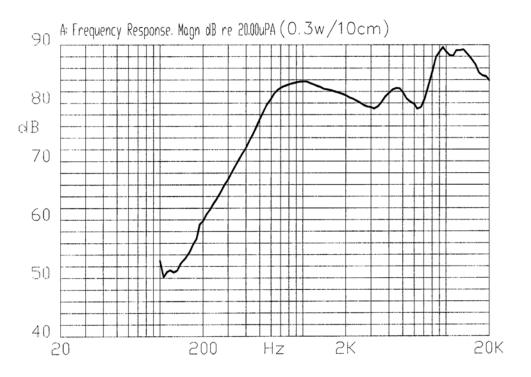


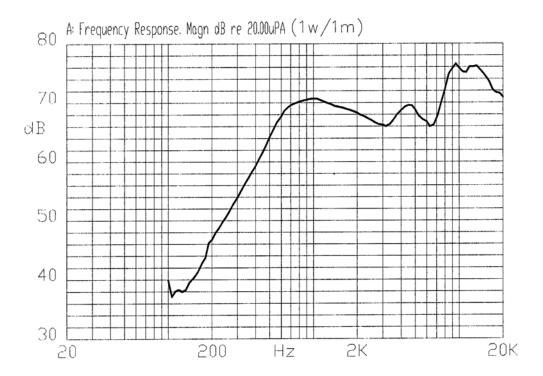


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### **Frequency Response Curve**



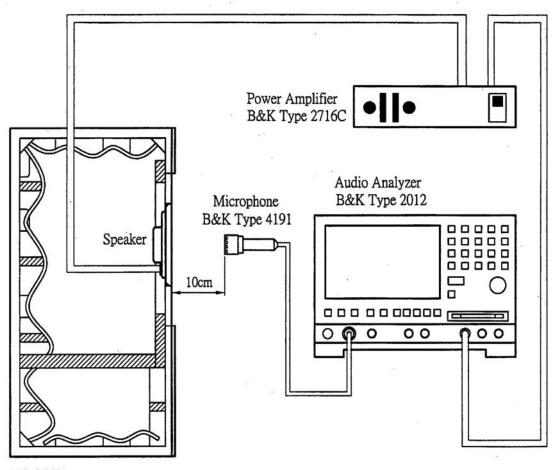




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### **Measurement Circuit**



JIS C5531 940mm x 640mm x 1240mm



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## **Mechanical Characteristics**

| Item                   | Test Condition                                  | Evaluation Standard             |  |
|------------------------|---|---------------------------------|--|
| PCB Wire Pull Strength | The pull force should be applied to double lead |                                 |  |
|                        | wire:   | No damage or cutting off.       |  |
|                        | Horizontal 3.0N (0.306kg) for 30 seconds        |                                 |  |
| Vibration              | The speaker should be measured after applying   |                                 |  |
|                        | a vibration amplitude of 1.5 mm with 10 to      | No obstacle will be harmful to  |  |
|                        | 55 Hz band of vibration frequency to each of    | normal operation; damage,       |  |
|                        | the 3 perpendicular directions for 2 hours.     | cracks, rust, and distortions.  |  |
| Drop Test              | The part will be dropped, contained inside a    | Should not be audible at 1.55 V |  |
|                        | normal box, from a height of 75 cm onto a 40    | sine wave between Fo ~ 20 KHz.  |  |
|                        | 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.  |  |
| Low temp. test   | After being placed in a chamber at -20°C for<br>96 hours.  | The speaker will be measured   |
| Humidity test    | After being placed in a chamber at +40°C and 90% relative humidity for 96 hours.   |  |
| Temp. cycle test | The part shall be subjected to 5 cycles. One cycle will consist of:<br>+55°C<br>+55°C<br>0.5<br>0.5<br>0.5<br>0.5<br>1hr<br>hr<br>hr<br>2hrs<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr<br>hr | after being placed at +25°C for 6<br>hours. No obstacle will be harm<br>ful to normal operation; damage,<br>cracks, rust, and distortions.<br>Should not be audible at 1.55 V<br>sine wave between Fo ~ 20 KHz.<br>The SPL should be within ±3dB<br>compared to the initial<br>measurements. |



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# **Reliability Test**

| Item  | Test Condition   |  | Evaluation Standard  |
|---|--|--|--|
| Load Test   | 0.3 W white noise, applie<br>room temperature.         | ed for 24 hours, at                            | The speaker will be measured<br>after being placed at +25°C for 6<br>hours. No obstacle will be harm<br>ful to normal operation; damage,<br>cracks, rust, and distortions.<br>Should not be audible at 1.55 V<br>sine wave between Fo ~ 20 KHz.<br>The SPL should be within ±3dB<br>compared to the initial<br>measurements. |
| Test Conditions                                     |  |  |  |
| Standard Test Condition<br>Judgement Test Condition | a) Tempurature: +5 ~ +35°C<br>a) Tempurature: +25 ±2°C | b) Humidity: 45 - 85%<br>b) Humidity: 60 - 70% | ,  |

## **Recommended Temperature Profile for Hand Soldering**

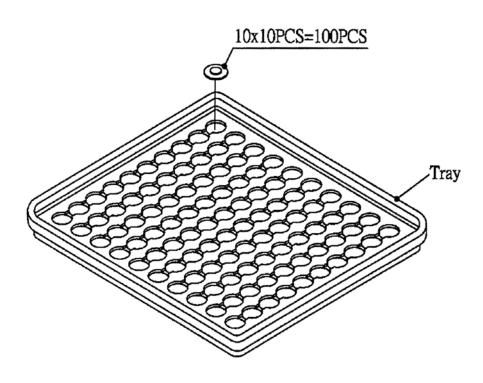
| Hand Soldering |           |  |
|----------------|-----------|--|
| 370±10℃        | / 3±1 Sec |  |



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Packaging



| 216mmx196mmx20.4mm | 1x100PCS=100PCS    |
|--------------------|--------------------|
|                    | 216mmx196mmx20.4mm |