

Description: piezo electric diaphragm

Date: 7/28/2006

Unit: mm Page No: 1 of 4

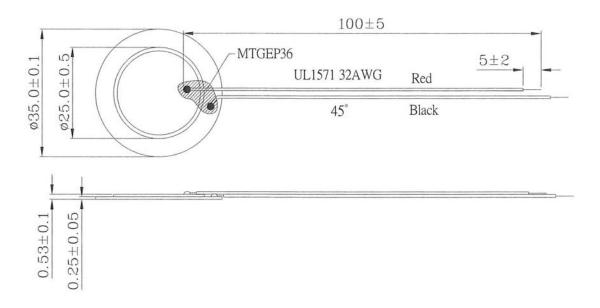


Specifications

| Maximum input voltage | 30 Vp-p | |
|---------------------------|--------------------|----------------------------|
| Resonant frequency | 2.6 ± 0.5 KHz | see Measurement Methods |
| Resonant impedance | 300 Ω max. | see Measurement Methods |
| Electrostatic capacitance | 30,000 ±30% pF | at 1 KHz / 1 V |
| Operating temperature | -20 ~ +70° C | |
| Storage temperature | -30 ~ +80° C | |
| Dimensions | Ø35.0 x H0.53 mm | |
| Weight | 2.0 g max. | |
| Material | Brass | |
| Terminal | Wire type | |
| DC resistance | 20 M Ω min. | Fluke 45 rate: Fast |
| | | Measurement time: 1 second |
| | | (only for ≤ 20 mm test) |
| RoHS | yes | |

Appearance Drawing

Tolerance: ±0.5



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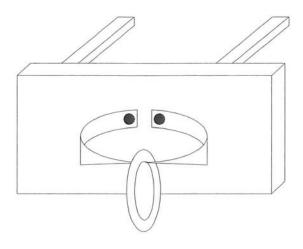
Unit: mm Page No: 2 of 4

Measuring Methods

1) Resonant frequency / Resonant impedance

The piezo electric diaphragm should be clamped at a node point (as shown in the following figure) to be free from any mechanical stress. Measure its resonant frequency and resonant impedance by using a vector impedance analyzer or equivalent.

When the input frequency is swept within 100 Hz to 5 KHz, the resonant frequency is defined as the frequency where the impedance shows minimum value. This impedance should be the resonant impedance.



2) Static capacitance

The electrostatic capacitance should be measured at 120 Hz by using an L.C.R. meter (ex. HP4194A(H.P.)) or equivalent. The part should be clamped in the same way as the measurement or resonant frequency / resonant impedance mentioned above.

Mechanical Characteristics

| Item | Test Condition | Evaluation Standard |
|-------------------------|---|-----------------------------------|
| Solderability | Stripped wires of lead wires are immersed in | 90% min. of the stripped wires |
| (Connector excepted) | rosin for 5 seconds and then immersed in | will be wet with solder. (Except |
| | solder bath of 270 ±5°C for 3 ±0.5 seconds. | the edge of the terminal) |
| Lead Wire Pull Strength | The horizontal force of 3.0N (0.306kg) should | No damage or cutting off. |
| _ | be applied to the double lead wire for 30 sec. | |
| Vibration | The diaphragm should be measured after | The value of the resonant |
| | applying a vibration amplitude of 1.5 mm with | frequency should be ±10% of the |
| | 10 to 55 Hz band of vibration frequency to each | initial measurements. |
| | of the 3 perpendicular directions for 2 hours. | Electrostatic capacitance should |
| | | be ±20% compared with the initial |
| | | measurement. The SPL should |
| | | be within ±10dB compared |
| | | with the initial measurement. |

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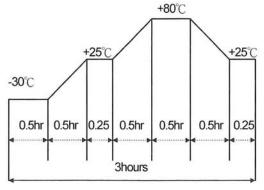
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Unit: mm

Page No: 3 of 4

Environment Test

| Item | Test Condition | Evaluation Standard |
|------------------|--|----------------------------|
| High temp. test | After being placed in a chamber at +80°C for | |
| | 240 hours. | |
| Low temp. test | After being placed in a chamber at -30°C for | |
| | 240 hours. | |
| Humidity test | After being placed in a chamber at +40°C and | |
| | 90±5% relative humidity for 240 hours. | The diaphragm will be |
| Temp. cycle test | The part shall be subjected to 5 cycles. One | after being placed at + |
| | cycle will consist of: | hours. The value of the |
| | +80 °C | resonant frequency sh |
| | 1000 | ±10%, the value of the |



ill be measured at +25°C for 4 of the cy should be of the electro static capacitance should be ±20% compared to the initial measurements. The resonant impedance should be 2,000 Ω max.

Test Conditions

Standard Test Condition **Judgement Test Condition** a) Tempurature: +5 ~ +35°C

a) Tempurature: +25 ±2°C

b) Humidity: 45 - 85%

c) Pressure: 860-1060 mbar b) Humidity: 60 - 70%

c) Pressure: 860-1060 mbar

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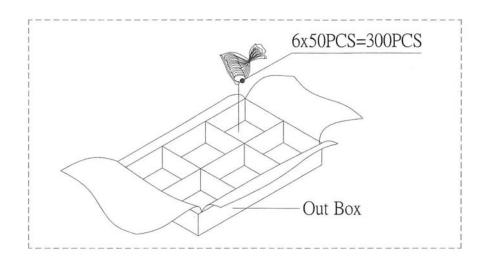


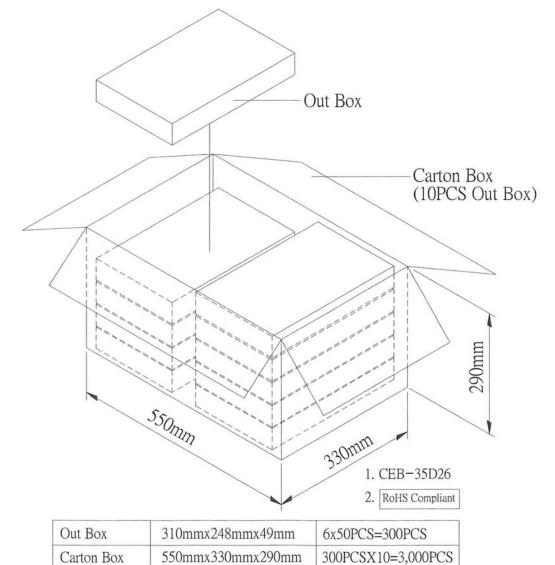
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Packaging





AMEYA360 Components Supply Platform

Authorized Distribution Brand:

























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