

FEATURES

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RS PRO Piezo Buzzer Components

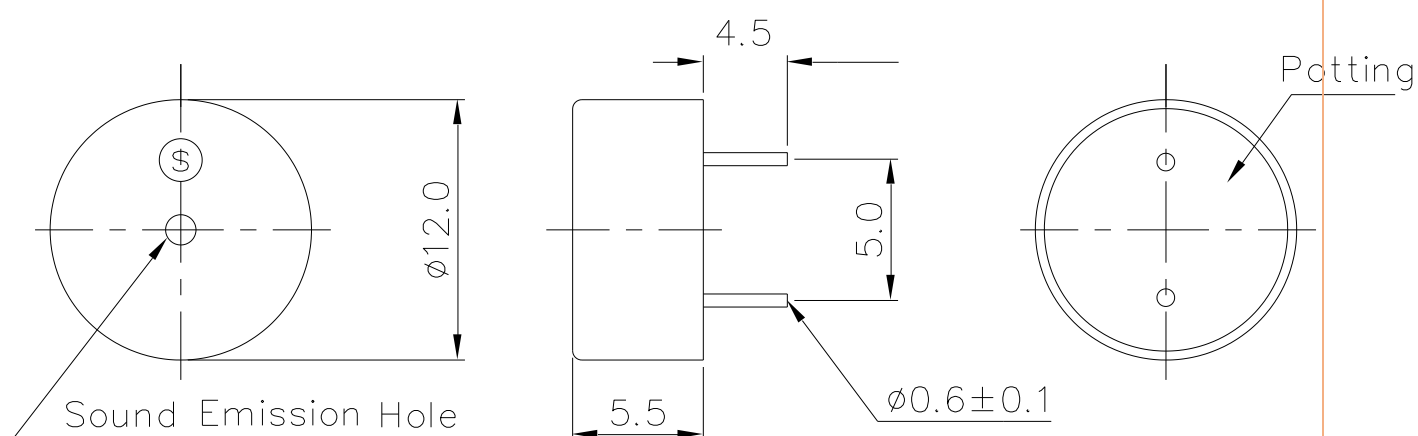
RS Stock No.: 7716910



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

APPEARANCE DRAWING



Unit : mm
Tol : ± 0.5

General Specifications

SPECIFICATION

| No. | Item | Unit | Specification | Condition |
|-----|----------------------|------|---------------|------------------------------------|
| 1 | Operating Volt. | Vp-p | 2~20 | |
| 2 | Current consumptio | mA | MAX 7 | At 9Vp-p,square wave,4.0KHz. |
| 3 | Sound pressure level | dB | MIN 85 | at 10 cm/9Vp-p,square wave,4.0KHz. |

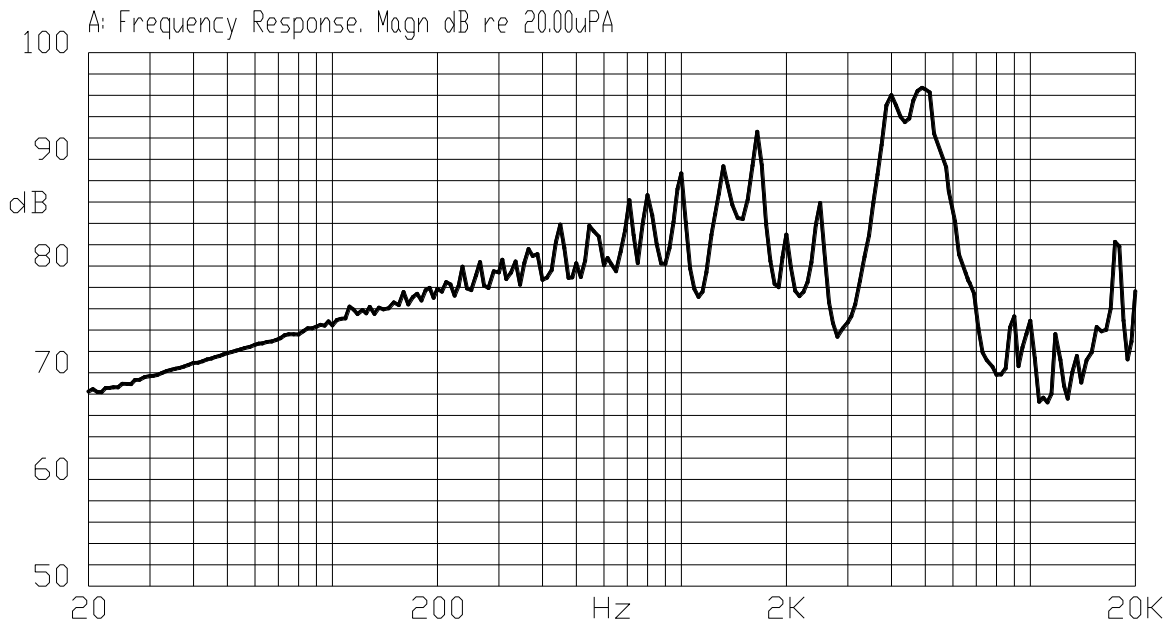
Piezo Buzzer Components



| | | | | |
|----|-------------------------------------|-------|---------------------------|--|
| 4 | Electrostatic capacity | pF | 12,000±30% | at 120Hz/1V |
| 5 | Operating temp. | °C | -40 ~ +85 | |
| 6 | Storage temp. | °C | -40 ~ +85 | |
| 7 | Dimension | mm | Φ 12.0 x H 5.5 | See appearance drawing |
| 8 | Weight (MAX) | gram | 1.5 | |
| 9 | Material | | PBT (BLACK) | |
| 10 | Terminal | | Pin type (/Plating Sn) | See appearance drawing |
| 11 | Environmental Protection Regulation | | RoHS | |
| 12 | Storage life | month | 6 | 6 months preservation at room temp.(25±3°C), Humidity40% |

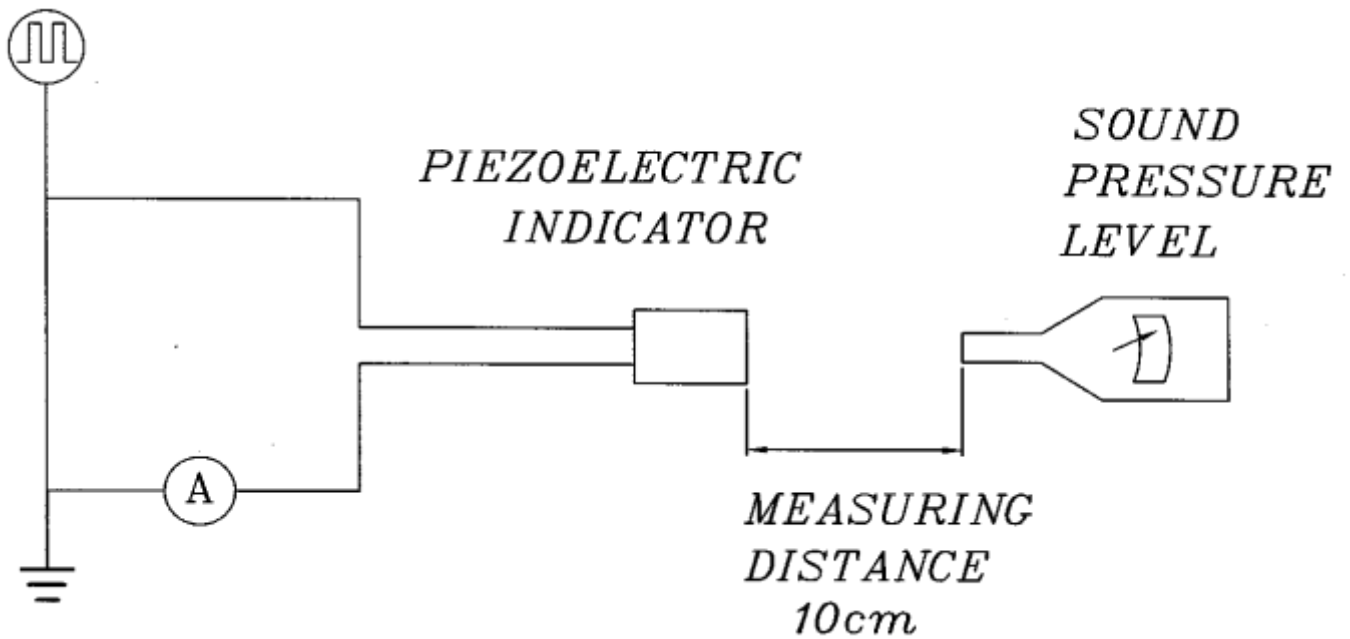
Electrical Specifications

TYPICAL FREQUENCY RESPONSE CURVE



MEASURING METHOD

S.P.L. Measuring Circuit
 Input Signal: 9Vp-p, 4.0kHz, Square Wave



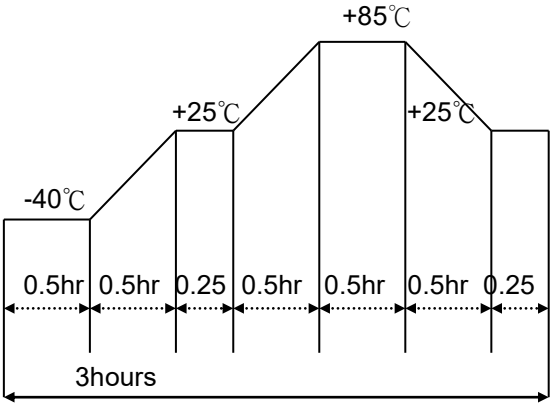
- Mic : RION S.P.L meter UC30 or equivalent
- S.G : Hewlett Packard 33120A Function Generator or equivalent

Mechanical Specifications
MECHANICAL CHARACTERISTICS

| No | Item | Test Condition | Evaluation standard |
|----|------------------------------|---|--|
| 1 | Solderability | Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+270\pm 5^{\circ}\text{C}$ for 3 ± 1 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 $+300\pm 5^{\circ}\text{C}$ for 3 ± 0.5 seconds or $+260\pm 5^{\circ}\text{C}$ for 10 ± 1 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. | The value of oscillation frequency/ current consumption should be in 10% compared with initial ones .The SPL should be in $\pm 10\text{dB}$ 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). | |

Operation Environment Specifications
ENVIRONMENT TEST

| No | Item | Test Condition | Evaluation standard |
|----|-----------------|---|---|
| 1 | High temp. test | After being placed in a chamber at $+85^{\circ}\text{C}$ for 96 hours | Being placed for 4 hours at $+25^{\circ}\text{C}$, buzzer shall be measured. The value of oscillation frequency/ |
| 2 | Low temp. test | After being placed in a chamber with -40°C for 96 hours | |
| 3 | Humidity test | After being placed in a chamber at $+50^{\circ}\text{C}$ and $90\pm 5\%$ relative humidity for 96 hours | current consumption should be in $\pm 10\%$ compared with |

| | | | |
|---|------------------|--|---|
| 4 | Temp. cycle test | <p>The part shall be subjected to 5 cycles. One cycle shall be consist of::</p>  | initial ones .The SPL should be in ± 10 dB compared with initial one. |
|---|------------------|--|---|

RELIABILITY TEST

| No. | Item | Test condition | Evaluation standard |
|-----|---------------------|---|---|
| 1 | Operating life test | <p>1.Continuous life test 48 hours continuous operation at +70°C with rated voltage applied.</p> <p>2.Intermittent life test A duty cycle of 1 minute on, 1 minutes off, a minimum of 5000 times at room temp.(+25 \pm2°C)and rated voltage applied</p> | Being placed for 4 hours at +25°C , buzzer shall be measured. The value of oscillation frequency/ current consumption should be in $\pm 10\%$ compared with initial ones .The SPL should be in ± 10 dB compared with initial one. |

TEST CONDITION.

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

Judgement Test Condition:a) Temperature : +25 \pm 2°C b) Humidity : 60-70% c)Pressure : 860-1060mpa.