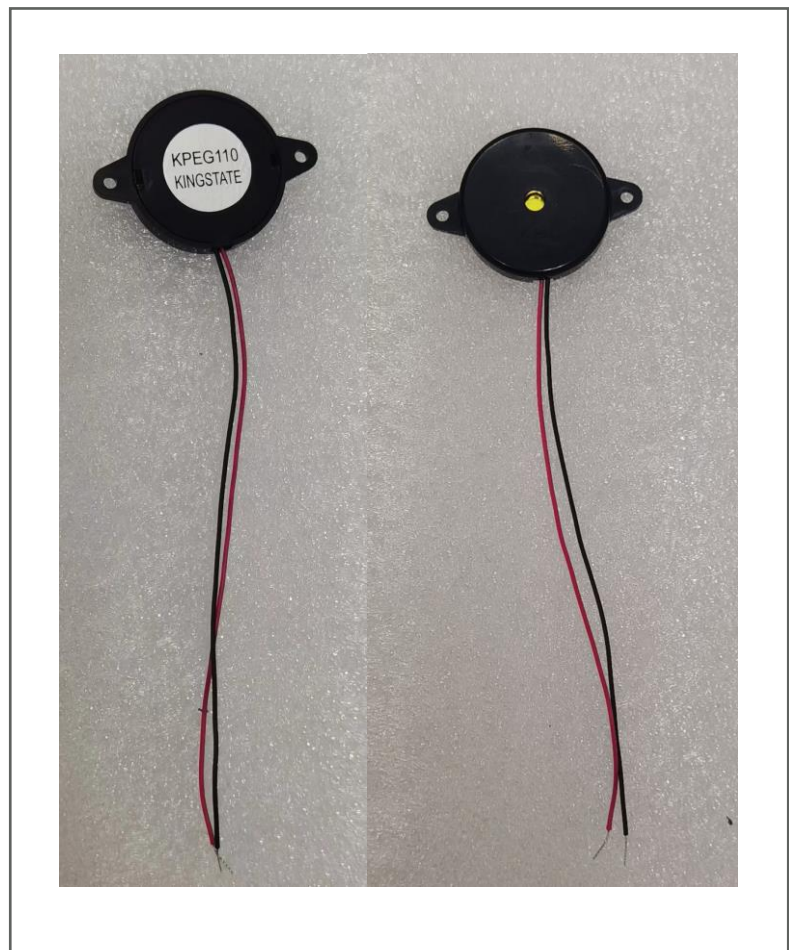


Features

- Electroacoustic parts
- Used to sound warning sounds
- Prompt sound or feedback sound
- Used in various electronic products

RS PRO Piezo Buzzer Components

RS Stock No.: 5358017



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

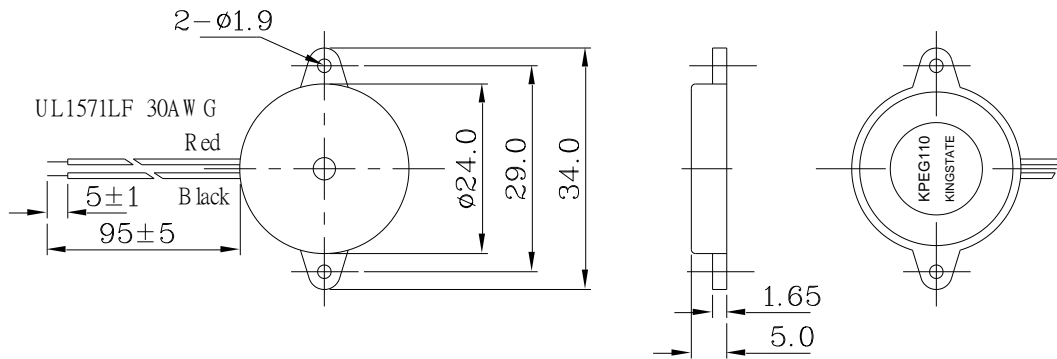
SCOPE

This specification applies piezo audio transducer, 535-8017

SPECIFICATION

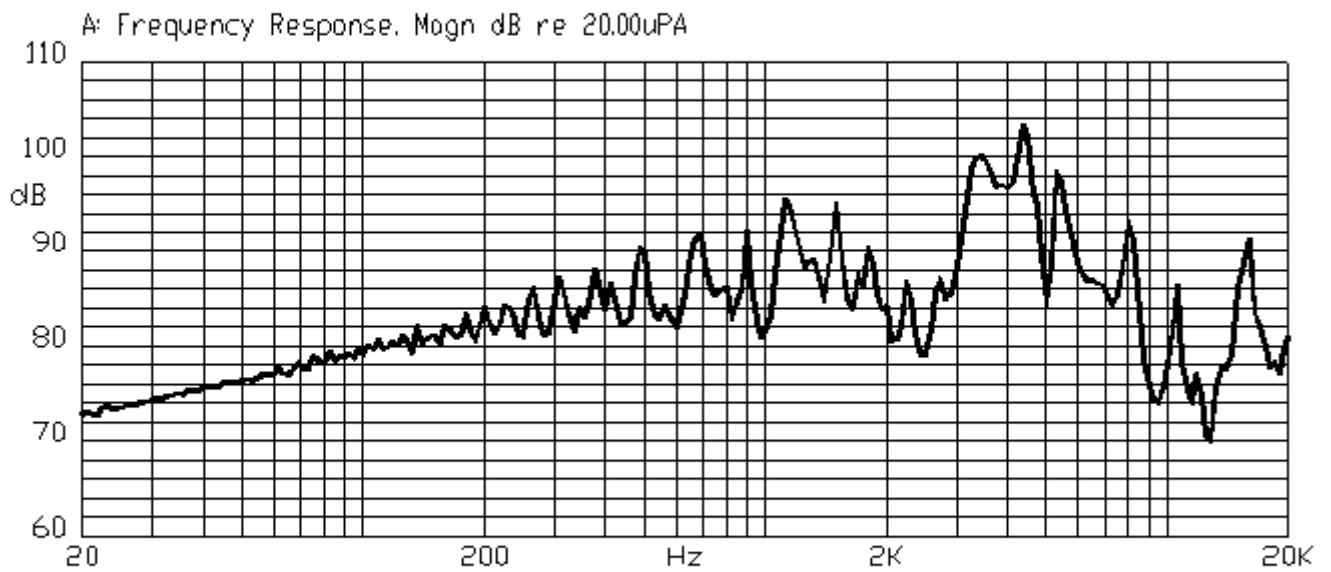
| No. | Item | Unit | Specification | Condition |
|-----|-------------------------------------|------|---|------------------------------------|
| 1 | Operating Volt. | Vp-p | MAX 30 | |
| 2 | Current consumption | mA | MAX 12 | at 10Vp-p,square wave,4.1KHz. |
| 3 | Sound pressure level | dB | MIN 90 | at 10cm/10Vp-p,square wave,4.1KHz. |
| 4 | Electrostatic capacity | pF | 25,000±30% | - at 1KHz/1V |
| 5 | Operating temp. | °C | -30 ~ +85 | |
| 6 | Storage temp. | °C | -40 ~ +95 | |
| 7 | Dimension | mm | ψ24.0x H5.0 | See appearance drawing |
| 8 | Weight (MAX) | gram | 2.2 | |
| 9 | Material | | ABS UL-94 1/16" HB HIGH HEAT (BLACK) | |
| 10 | Terminal | | Wire type | See appearance drawing |
| 11 | Environmental Protection Regulation | | ROHS | |

APPEARANCE DRAWING



Tol : ± 0.5
Unit : mm

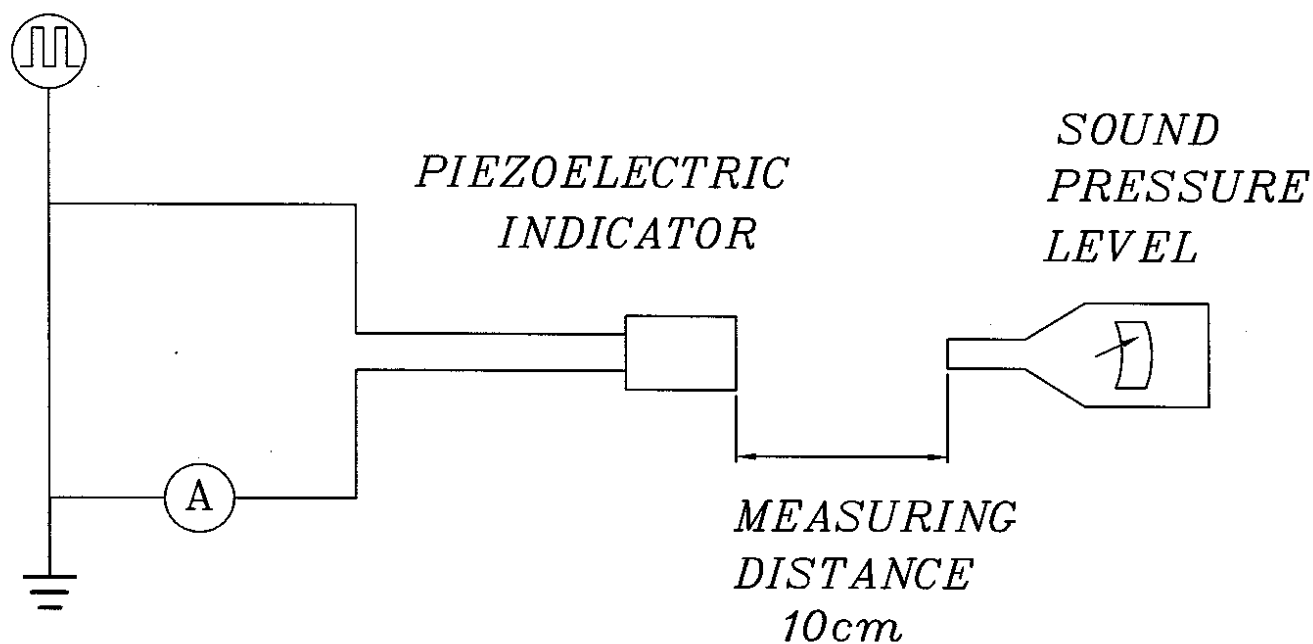
TYPICAL FREQUENCY RESPONSE CURVE



MEASUREMENT METHOD

S.P.L. Measuring Circuit

Input Signal: 10Vp-p, 4.1kHz, Square Wave



Mic : RION S.P.L meter UC30 or equivalent

Mic : RION

S.G : Hewlett Packard 33120A Function Generator or equivalent

S.G : Hewlett Packard 33120A

MECHANICAL CHARACTERISTICS

| No | Item | Test Condition | Evaluation standard |
|----|---------------------------|--|---|
| 1 | Solderability | Stripped wires of lead wires are immersed in rosin for 5 seconds and then immersed in solder bath of $+230 \pm 5$ °C for 3 ± 0.5 seconds. | 90% min. stripped wires shall be wet with solder.(Except the edge of terminal) |
| 2 | Soldering Heat Resistance | Stripped wires are immersed up to 1.5mm from insulation in solder bath of $+300 \pm 5$ °C for 3 ± 0.5 seconds or $+260 \pm 5$ °C for 10 ± 1 seconds, and then sounder shall be measured after being placed in natural condition for 4 hours. | No interference in operation |
| 3 | Lead Wire Pull Strength | The pull force shall be applied to lead wire : Horizontal 3.0N Vertical 2.0N | 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 $\pm 10\%$ compared with initial ones .The SPL should be in ± 10 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). | |

ENVIRONMENT TEST

| No. | Item | Test Condition | Evaluation standard |
|-----|-----------------|--|--|
| 1 | High temp. test | After being placed in a chamber at $+125$ °C for 240 hours | Being placed for 4 hours at $+25$ °C, buzzer shall be measured. The value of |
| 2 | Low temp. test | After being placed in a chamber at -40 °C for 240 hours | |
| 3 | Humidity test | After being placed in a chamber at $+40$ °C and $90 \pm 5\%$ relative humidity for 240 hours | |

| | | | |
|---|------------------|--|---|
| 4 | Temp. cycle test | <p>The part shall be subjected to 5 cycles. One cycle shall be consist of:</p> <p style="text-align: center;">3hours</p> | <p>oscillation frequency/ current consumption should be in$\pm 10\%$ compared with initial ones .The SPL should be in$\pm 10\text{dB}$ compared with initial one.</p> |
|---|------------------|--|---|

| No. | Item | Test condition | Evaluation |
|-----|---------------------|--|---|
| 1 | Operating life test | <p>1.Continuous life test 2 hours continuous operation at +105°C with 15V applied.</p> <p>2.Intermittent life test A duty cycle of 1 minute on, 5 minutes off, a minimum of 10000 times at room temp.(+25 \pm2°C)and maximum rated voltage applied. 10000 次循環.</p> | <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 $\pm 10\text{dB}$ compared with initial one.</p> |

RELIABILITY TEST

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