

Piezoelectric Ceramic Buzzer with built-in oscillating circuit (Wire Type)

- 2** KSE-D-2312
- 3** KSE-D-2310-E

Piezoelectric Ceramic Buzzer with built-in oscillating circuit (Pin Type)

- 4** KSE-PB-23*16-C2
- 5** HPA24AX
- 6** KSE-D-1407B-05
- 7** HPM14AX

- 8** Electrical And Acoustical Measuring Condition
and Recommended wave soldering temperature

Piezoelectric Ceramic Buzzer
1. Product type: Piezoelectric Ceramic Buzzer with built-in oscillating circuit (Wire Type)

2. Technical Parameter Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

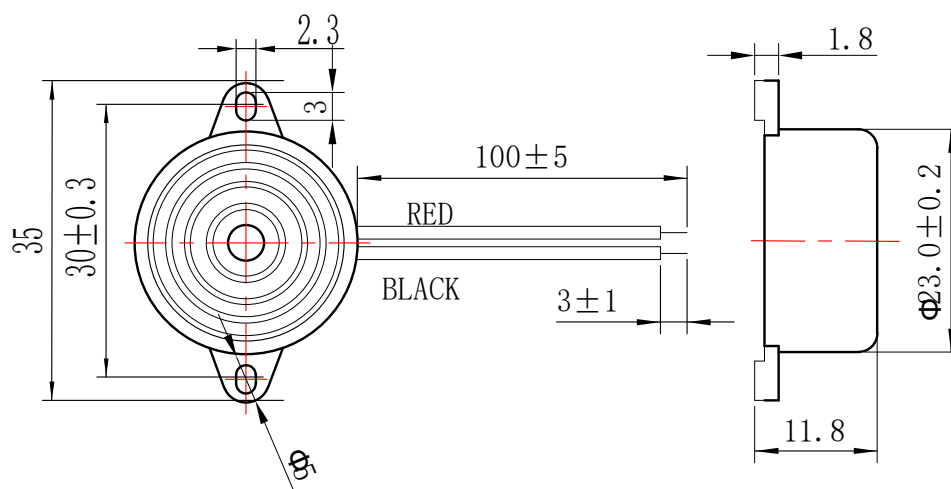


| | | |
|----|-----------------------|--------------------|
| 1 | Rated Voltage | 12VDC |
| 2 | Operating Voltage | 6– 15 VDC |
| 3 | Rated Current | Max.20mA, at12VDC |
| 4 | Sound Output at 30cm | Min.85dB, at 12VDC |
| 5 | Resonant Frequency | 3500± 500 Hz |
| 6 | Tone | Continuous |
| 7 | Operating Temperature | -20 - +70℃ |
| 8 | Storage Temperature | -30 - +80℃ |
| 9 | RoHS | Yes |
| 10 | Weight | Approx 4.5g |

3. Dimensions

Unit: mm

Tolerance± 0.5mm Except Specified



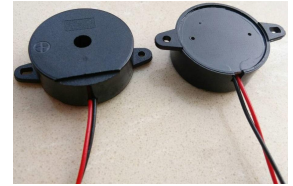
*Housing Material: Black ABS Lead Wire:UL1007 28#

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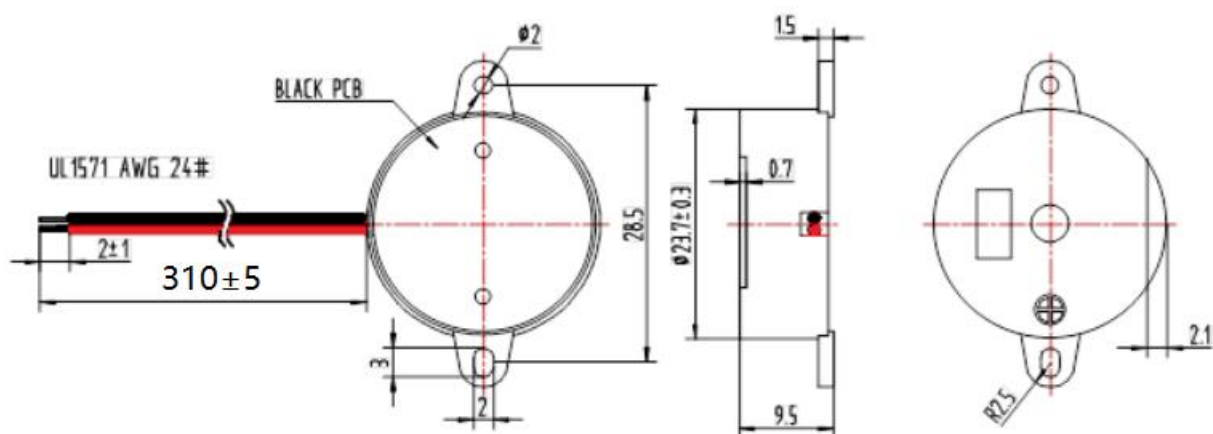


| | | |
|----|-----------------------|--------------------|
| 1 | Rated Voltage | 24VDC |
| 2 | Operating Voltage | 15– 28 VDC |
| 3 | Rated Current | Max.30mA, at 24VDC |
| 4 | Sound Output at 10cm | Min95dB at 24VDC |
| 5 | Resonant Frequency | 3500± 500 Hz |
| 6 | Tone | Continuous |
| 7 | Operating Temperature | -20 - +70°C |
| 8 | Storage Temperature | -30 - +80°C |
| 9 | RoHS | Yes |
| 10 | Weight | Approx 3g |

3. Dimensions

Unit: mm

Tolerance: ± 0.5mm Except Specified



*Housing Material: Black ABS

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2. Technical Parameter

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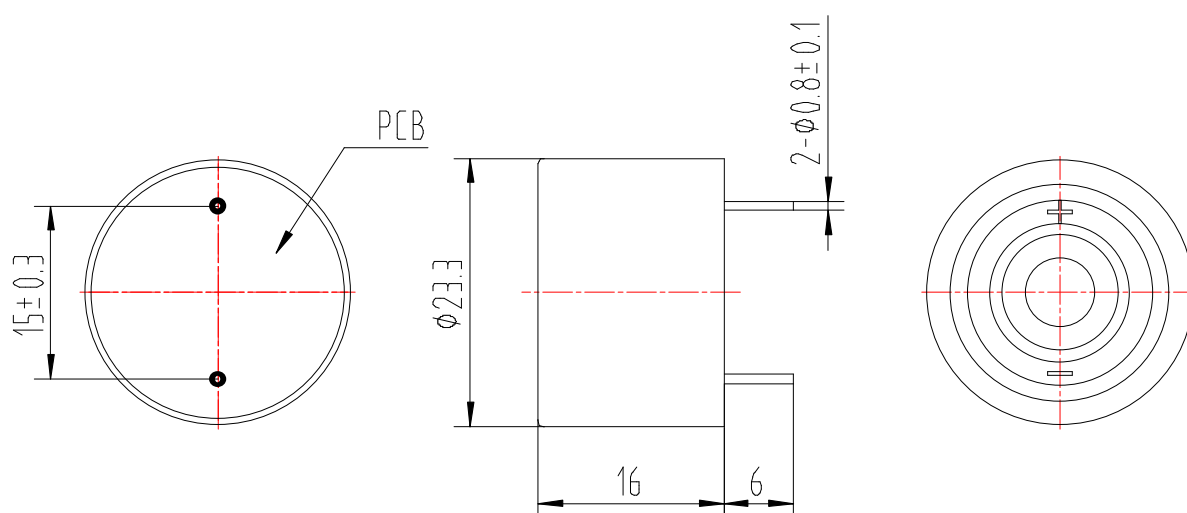


| | | |
|----|-----------------------|--------------------|
| 1 | Rated Voltage | 12 VDC |
| 2 | Operating Voltage | 5- 15VDC |
| 3 | Rated Current | Max.30mA, at 12VDC |
| 4 | Sound Output at 10cm | Min.95dB, at 12VDC |
| 5 | Resonant Frequency | 3100±500 Hz |
| 6 | Tone | Continuous |
| 7 | Operating Temperature | -20 - +70°C |
| 8 | Storage Temperature | -30 - +80°C |
| 9 | RoHS | Yes |
| 10 | Weight | Approx 5g |

3. Dimensions

Unit: mm

Tolerance: ±0.5mm Except Specified



*Housing Material: Black PBT

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Atmospheric pressure: 860 ~ 1060hPa) unless the standard
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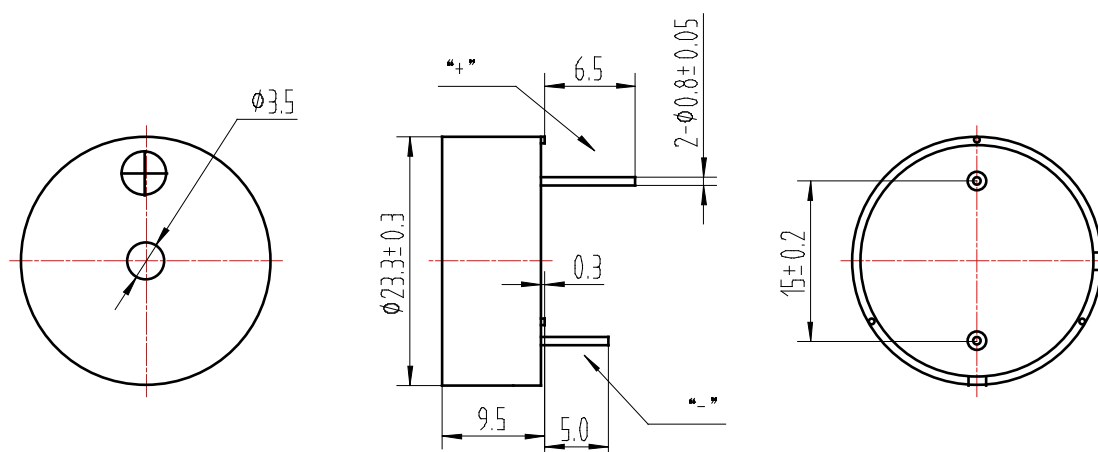


| | | |
|----|-----------------------|--------------------|
| 1 | Rated Voltage | 12 VDC |
| 2 | Operating Voltage | 6 – 15VDC |
| 3 | Rated Current | Max.20mA, at 12VDC |
| 4 | Sound Output at 10cm | Min.95dB, at 12VDC |
| 5 | Resonant Frequency | 3500± 500 Hz |
| 6 | Tone | Continuous |
| 7 | Operating Temperature | -20 - +70°C |
| 8 | Storage Temperature | -30 - +80°C |
| 9 | RoHS | Yes |
| 10 | Weight | Approx 3g |

3. Dimensions

Unit: mm

Tolerance± 0.5mm Except Specified



*Housing Material: Black PPO

Piezoelectric Ceramic Buzzer
1. Product type: Piezoelectric Ceramic Buzzer with built-in oscillating circuit (Pin Type)

2. Technical Parameter Measuring condition

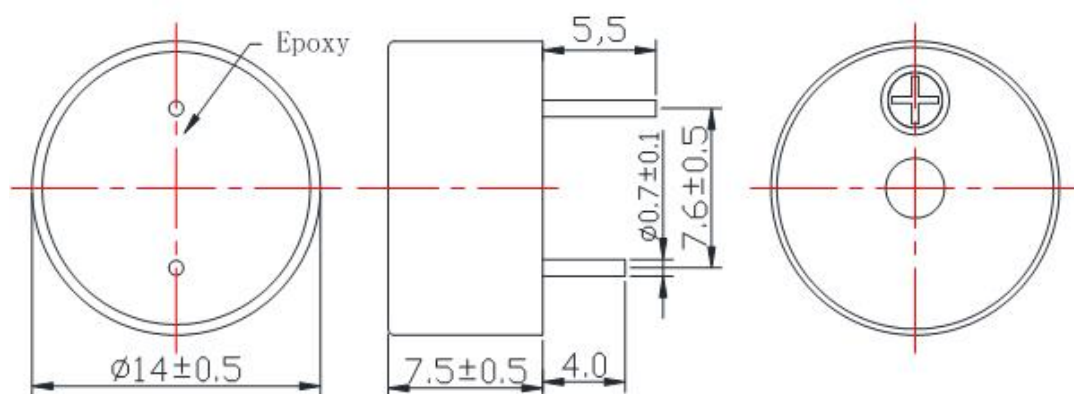
Part shall be measured under a condition (Temperature: 5 ~ 35°C, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3 °C, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

| | | |
|----|-----------------------|-------------------|
| 1 | Rated Voltage | 5VDC |
| 2 | Operating Voltage | 3 – 18 VDC |
| 3 | Rated Current | Max.15mA, at 5VDC |
| 4 | Sound Output at 10cm | Min.80dB, at 5VDC |
| 5 | Resonant Frequency | 4000± 200 Hz |
| 6 | Tone | Continuous |
| 7 | Operating Temperature | -20 - +70°C |
| 8 | Storage Temperature | -30 - +80°C |
| 9 | RoHS | Yes |
| 10 | Weight | Approx 1 g |

3. Dimensions

Unit: mm

Tolerance: ± 0.5mm Except Specified



*Housing Material: PPO

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2. Technical Parameter

Measuring condition

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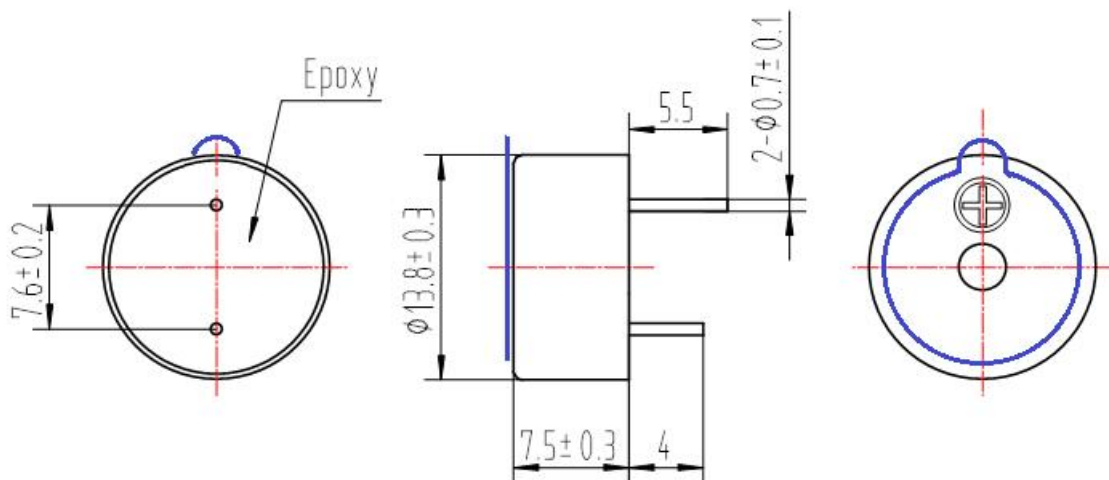


| | | |
|----|-----------------------|--------------------|
| 1 | Rated Voltage | 12VDC |
| 2 | Operating Voltage | 5 – 15VDC |
| 3 | Rated Current | Max.15mA, at 12VDC |
| 4 | Sound Output at 10cm | Min.80dB, at 12VDC |
| 5 | Resonant Frequency | 4000±500 Hz |
| 6 | Tone | Continuous |
| 7 | Operating Temperature | -20 - +70°C |
| 8 | Storage Temperature | -30 - +80°C |
| 9 | RoHS | Yes |
| 10 | Weight | Approx 1g |

3. Dimensions

Unit: mm

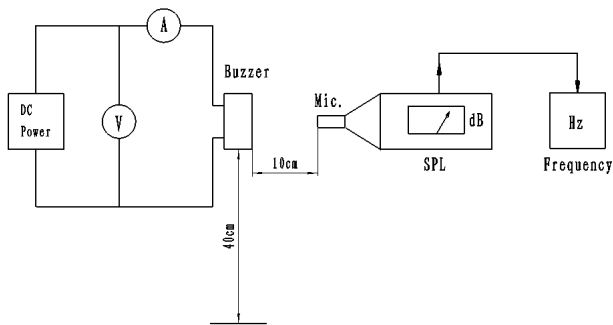
Tolerance: ±0.5mm Except Specified



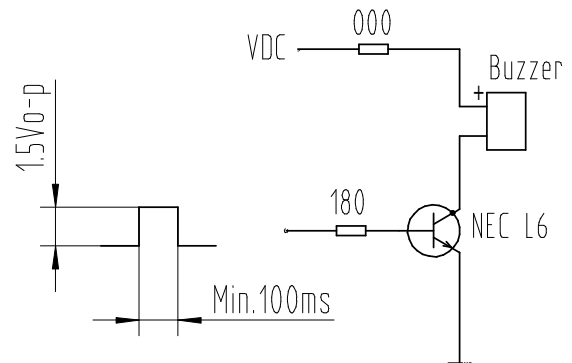
*Housing Material: Black PBT **Longer pin indicates a positive pole, shorter pin - a negative pole. Do not confuse!**

Electrical And Acoustical Measuring Condition

a) Recommended Setting



b) Recommended Test Circuit



Recommended wave soldering temperature

