

Product Type : Piezo Sound Generator Component
Part Number : AB3342
Color : Black

1. Purpose and Scope

This document contains both general requirements, qualification requirements, and those specific electrical, mechanical requirements for this part.

2. Description

Ø30mm piezo sound generator with 120mm UL1007 AWG#28 wires, rated frequency at 4000Hz and SPL \geq 85dB, RoHS compliant.

3. Application

Telecommunication Equipment, Computers and Peripherals, Portable Equipment, etc.

4. Component Requirement

4.1. General Requirement

- | | |
|------------------------------------|------------------|
| 4.1.1. Operating Temperature Range | : -20°C to +60°C |
| 4.1.2. Storage Temperature Range | : -30°C to +70°C |
| 4.1.3. Weight | : Approx. 3.5g |

4.2. Electrical Requirement

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|---|--------------------|
| 4.2.1. Rated Voltage (Sine Wave) | : 3Vp-p |
| 4.2.2. Operating Voltage | : 1 ~ 30 Vp-p |
| 4.2.3. Rated Current | : \leq 1mA |
| 4.2.4. Capacitance at 120Hz | : $25 \pm 30\%$ nF |
| 4.2.5. Sound Pressure level at 10cm
(Applying rated voltage and rated frequency) | : \geq 85dB |
| 4.2.6. Rated Frequency | : 4000 Hz |

4.3. Mechanical Requirement

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|-----------------------------|---------------------------|
| 4.3.1. Layout and Dimension | : See Section 6, Figure 2 |
|-----------------------------|---------------------------|

4.4. Test Setup

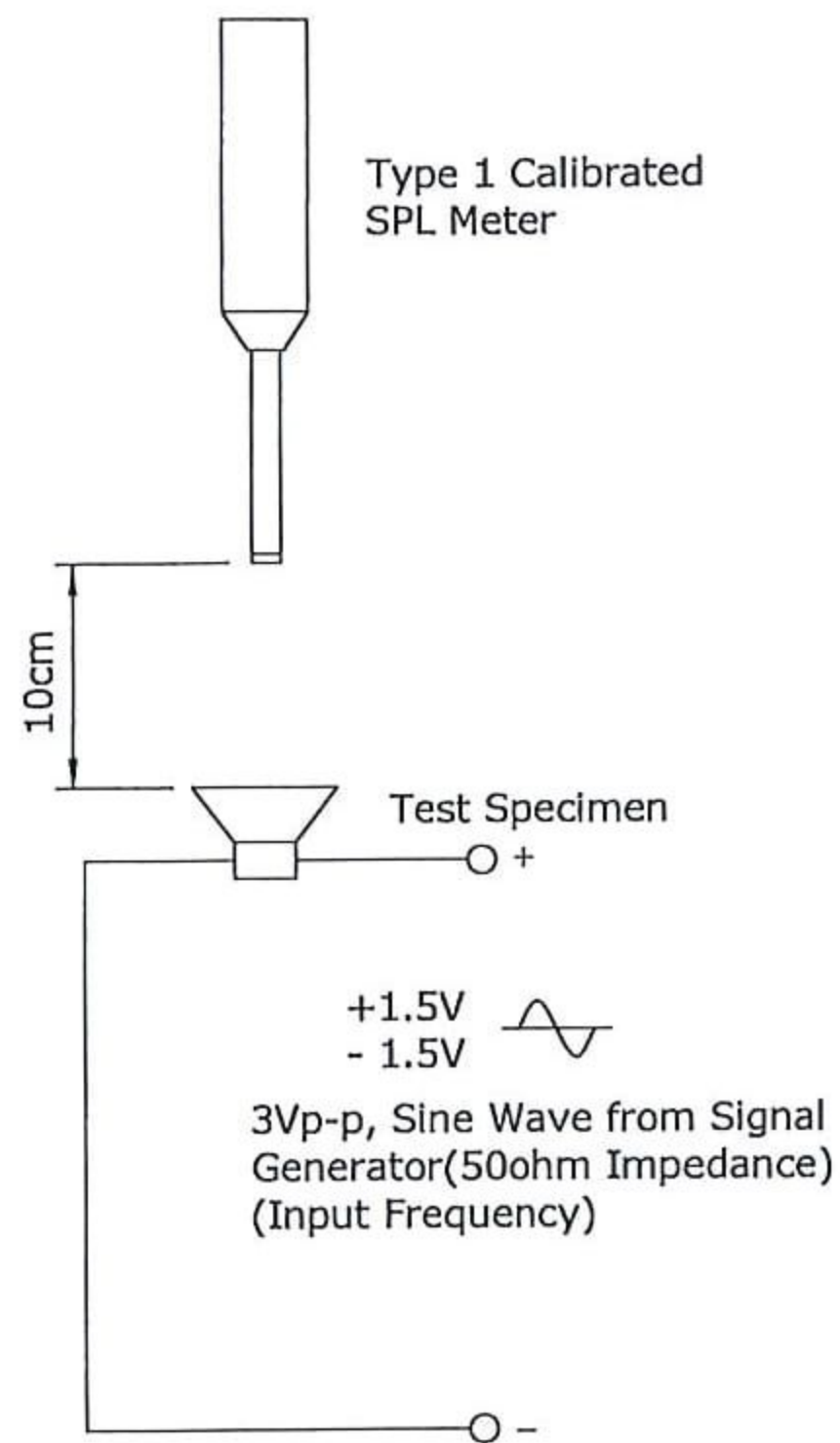


Figure 1. Test Setup

Notes : Apply rated voltage from Signal Generator, set rated frequency from Signal Generator. Measure SPL using a calibrated SPL meter 10cm from the alert port. Sound level meter to be in accordance with IEC651 (1979) Type 1 and/or ANSI S1.4-1983. The meter must be checked on a daily basis using a calibrated acoustic calibrator recommended by the manufacturer. Measurement should be carried out in a free field environment or at least 40cm from any surface.

5. Reliability Test

- 5.1. High Temperature** : Subject samples to +70°C for 96 hours. Components must be fully stabilized at temperature extremes before data is taken, which may require up to a 2 hours soak.
- 5.2. Low Temperature** : Subject samples to -30°C for 96 hours. Components must be fully stabilized at temperature extremes before data is taken, which may require up to a 2 hours soak.
- 5.3. Temperature Shock** : Each temperature cycle shall consist of 1 hours at -30°C followed by 1 hour at +80°C with a 20 seconds maximum transition time between temperature extremes. Test duration is for 32 cycles.
- 5.4. Drop Test** : Drop samples naturally from the height of 1m onto a wooden board six times.

6. Mechanical Layout

Unit : mm

Tolerance : Linear XX.X = ±0.3
 XX.XX = ±0.05
 Angular = ±0.25°
(unless otherwise specified)

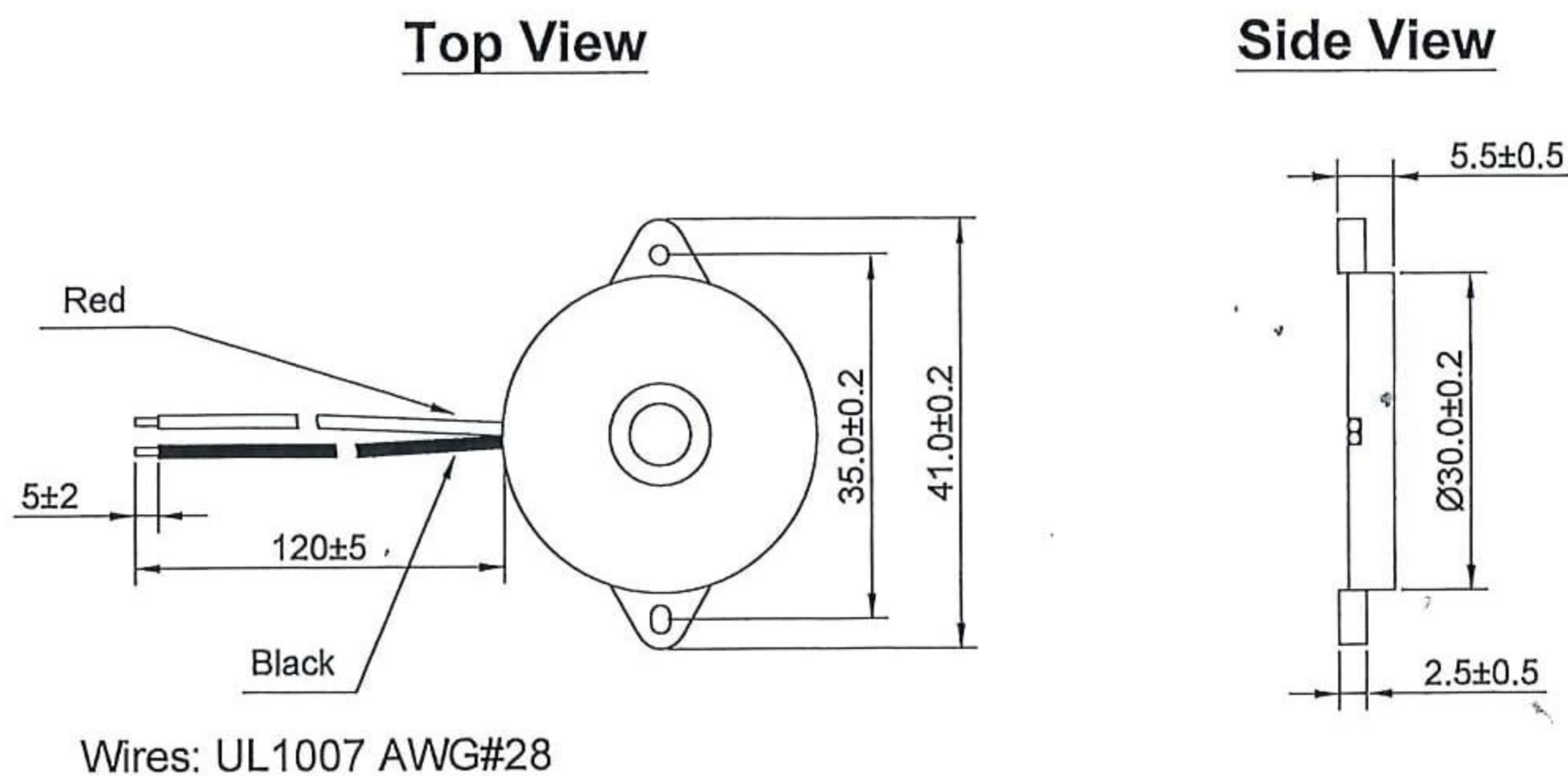


Figure 2. Mechanical Layout