

Specification of Piezoelectric Buzzer

1. Scope

This specification is applied to the piezoelectric buzzer, which are used for alarm systems.

2. Item No.: PB24P34D

3. Ratings

- * Operating Temperature Range: - 20°C ~ + 105°C
- * Storage Temperature Range: - 40 °C ~ + 105°C
- * Operating Voltage: 3.0 to 30.0 VDC
- * Case material: PC UL 94HB

4. Outline Drawing and Dimensions

- * Appearance: No visible damage and dirt
- * Dimensions: as per Fig. 1

5. Electrical Requirements

	Items	Specifications	Test Conditions
5-1.	Sound Pressure Level	85dB min. Continuous Tone	Input Voltage: 9.0V DC Distance: 10 cm *As per Fig. 2
5-2.	Oscillating Frequency	3.0 ± 0.5 KHz	
5-3.	Current Consumption	9.0 mA max.	At 9.0 VDC

- * Electrical Requirements should be specified at room temperature and humidity.
(Ref. Temperature: 25 ± 3°C, Humidity: 60 ± 10% RH)

6. Physical Characteristics

	Test Items	Test Conditions	Performance Requirements
6-1.	Vibration	Buzzer shall be measured after being applied vibration of amplitude of 1.5 mm with 10 to 55 Hz band of vibration frequency to each three mutually perpendicular directions for 2 hours.	The measured values shall meet Table 1.
6-2.	Resistance to Soldering Heat	Lead terminal are immersed up to 1.5 mm from Buzzer's body in solder bath of $260 \pm 5^{\circ}\text{C}$ for 3 ± 0.5 seconds or $245 \pm 5^{\circ}\text{C}$ for 5 ± 1 seconds, and then sounder shall be measured after being placed in natural condition for 4 hours.	The measured values shall meet Table 1.
6-3.	Solder Ability	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $245 \pm 5^{\circ}\text{C}$ for 3 ± 1 seconds.	90% min. lead terminals shall be wet with solder.
6-4.	Terminal Pull Strength	Vertical: 1KG min.	No visible damage and cutting off.

7. Environmental Characteristics

	Test Items	Test Conditions	Performance Requirements
7-1.	High Temperature	After being placed in a chamber with $+85 \pm 2^{\circ}\text{C}$ for 240 hours and then being placed in natural condition for 4 hours, buzzer shall be measured.	The measured values shall meet Table 1.
7-2.	Low Temperature	After being placed in a chamber with $-40 \pm 2^{\circ}\text{C}$ for 240 hours and then being placed in natural condition for 4 hours, buzzer shall be measured.	
7-3.	Humidity	After being placed in a chamber with 90 to 95% R.H. at $+40 \pm 2^{\circ}\text{C}$ for 240 hours and then being placed in natural condition for 4 hours, buzzer shall be measured.	
7-4.	Temperature Cycle	After being placed in a chamber at $-40 \pm 2^{\circ}\text{C}$ for 30 minutes, buzzer shall be placed at room temperature ($+20^{\circ}\text{C}$). After 15 minutes at this temperature, buzzer shall be placed in a chamber at $+85 \pm 2^{\circ}\text{C}$. After 30 minutes at this temperature, buzzer shall be returned to room temperature ($+20^{\circ}\text{C}$) for 15 minutes. After 5 above cycles, buzzer shall measure after being placed in natural condition for hours.	

Table 1

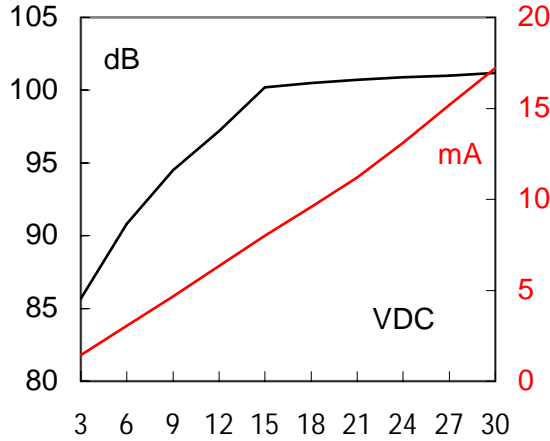
Items	Performance Requirements
Sound Pressure Level	Initial Value ± 10 dB

8. Others

8-1. This specification mentions the quality of the component as a single unit. Please insure the component is thoroughly evaluated in your application circuit.

8-2. Please do not use this component in any application that deviates from its intended use as noted within the specification. It may cause any mishaps.

8-3. Sound Pressure Level and Current Consumption vs. DC Voltage



Dimensions Unit: mm ± 0.2

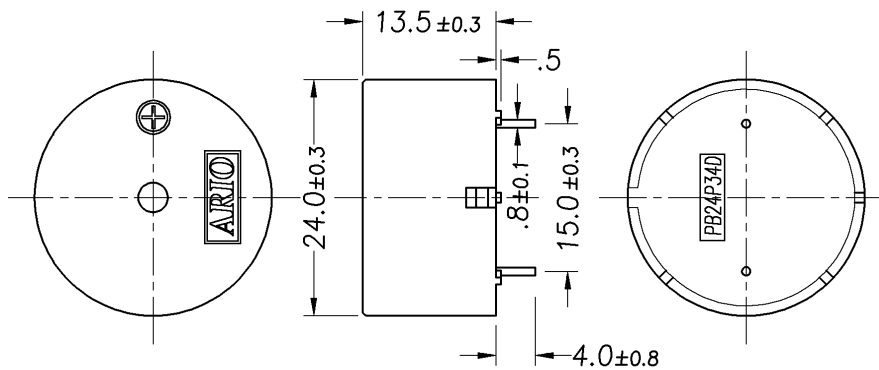


Fig.1

Test Circuit

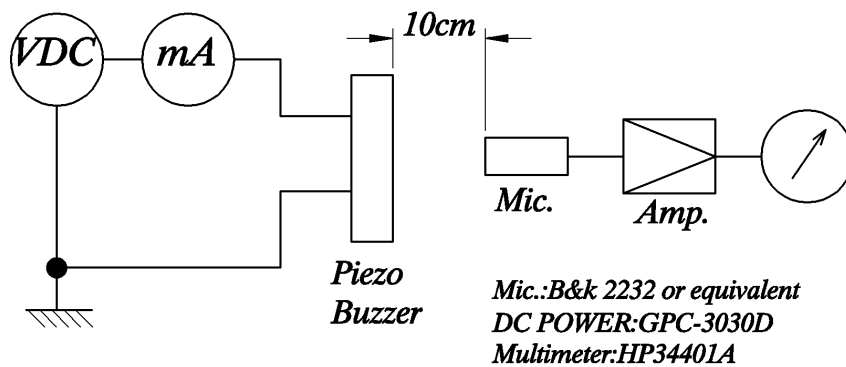


Fig. 2