

Piezo Buzzer

A piezo buzzer is an audio signaling device that uses the piezoelectric effect to produce sound.

Working Principle:

When a voltage is applied to a piezoelectric material (like quartz), it vibrates and produces sound. The frequency of the input voltage determines the pitch of the sound.

Types:

- Active Buzzer (has internal oscillator, needs only DC)
- Passive Buzzer (needs a signal to produce tone)

Applications:

- Alarm systems
- Timers and reminders
- Notifications in devices
- Toys and games

Advantages:

- Low power consumption
- Compact and lightweight
- Easy to use with microcontrollers

Disadvantages:

- Limited volume
- Monotone (usually fixed frequency in active buzzers)

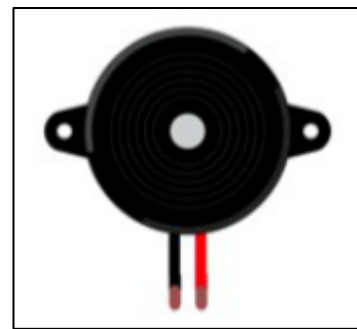


Fig: Piezo Buzzer