

Active buzzer module

Active Buzzer Sound Module



(a) the introduction of a buzzer

: 1. The role of the buzzer is an integration of electron acoustic structure, USES the dc power supply, is widely used in computers, printers, photocopiers, alarm, electronic toys, automotive electronic equipment, telephone, timer and other electronic products for voice devices.

2. Buzzer classification: mainly divided into piezoelectric buzzer and magnetic buzzer two types.

3. The buzzer circuit graphic symbol: buzzer in circuit with the letter "H" or "HA" (old standard with "FM", "LB", "JD", etc.).

Buzzer schematic

(2) the structure principle of buzzer

1. The piezoelectric buzzer: piezoelectric buzzer is mainly by multivibrator, piezoelectric, impedance matching unit and sound box, shell, etc. Some of the piezoelectric buzzer also equipped with light-emitting diodes (leds).

Multivibrator composed of transistors or integrated circuits. When after turning on the power supply (1.5 V to 15 V dc voltage), multivibrator vibration, 1.5 2.5 kHz audio signal output, impedance matcher driving piezoelectric buzzer sound.

By lead zirconate titanate piezoelectric buzzer or niobium magnesium acid lead piezoelectric ceramic materials. On both sides of the ceramic chip plating silver electrodes, after polarization and aging treatment, with brass or stainless steel pieces together again.

2. Magnetic buzzer: magnetic buzzer by the oscillator, the electromagnetic coil, magnets, vibration membrane and shell, etc.

After turning on the power supply, audio signals generated by oscillator by electromagnetic

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coil current, make the electromagnetic coil produces magnetic field. Diaphragm vibration under the interaction of electromagnetic coil and magnet, periodic vibration.

(3) the buzzer

Electromagnet M: (1) preparation on the iron bolts of about 6 cm long around 100 laps conductor, terminal 5 cm for lead, coil with transparent tape glued well, lest you release coil, and then stick it in a box with tape, electromagnet is ready.

(2) preparation of shrapnel P: cut off from the iron cans a long iron about 2 cm wide, bent at right angles, the electromagnet is one of the lead in the shrapnel, reoccupy adhesive shrapnel close to on board.

Do contact Q (3) with a paper clip, the paper clip book mat is high, the cement with tape to elicit a conductor, as shown in figure good connection circuit.

(4) to adjust the distance between the M and P (by moving the box), make the electromagnet attract shrapnel, adjust the distance between the contact and shrapnel, that they can contact, after electrify can hear a hum.

(4) of passive and active buzzer buzzer

Teach you how to distinguish between passive and active buzzer buzzer

Now in the market to sell a small buzzer because of its small size (diameter only LLMM), light weight, low price, stable structure, and widely used in various kinds of need of sound electrical equipment, electronic production and MCU circuit, etc.

Look from the exterior, it seems that two buzzer, but look closely, the height of the slightly difference, active buzzer, a height of 9 mm, and the height of the passive buzzer b to 8 mm. If the two pins are placed on the buzzer, it can be seen with a green circuit board is a kind of passive buzzer, no circuit board with black rubber seal is a kind of active buzzer.

Blend step judgment of passive and active buzzer buzzer, can also use the multimeter resistance Rxl gear test: "+" pin with black pens and pick up a buzzer, red pens and back and forth to touch on a pin, if the trigger out sound making, and the resistance of only 8 Ω (or 16 Ω) is a passive buzzer; If can continue to sound and resistance in hundreds of the above, is an active buzzer.

Active buzzer is directly connected to the rated power (new buzzer are indicated in the label) can be continuous voice; While passive buzzer and electromagnetic speaker, need to connect to voice in the audio output circuit.

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