Electro-Magnetic Buzzer

With Pin

ϕ 12×10 mm

FHC12MP10P14-4000

Revision

Date	Version	Status	Changes	Approver
2024\5\27	V0.1	Draft	First release	AX

1. Technical Parameter

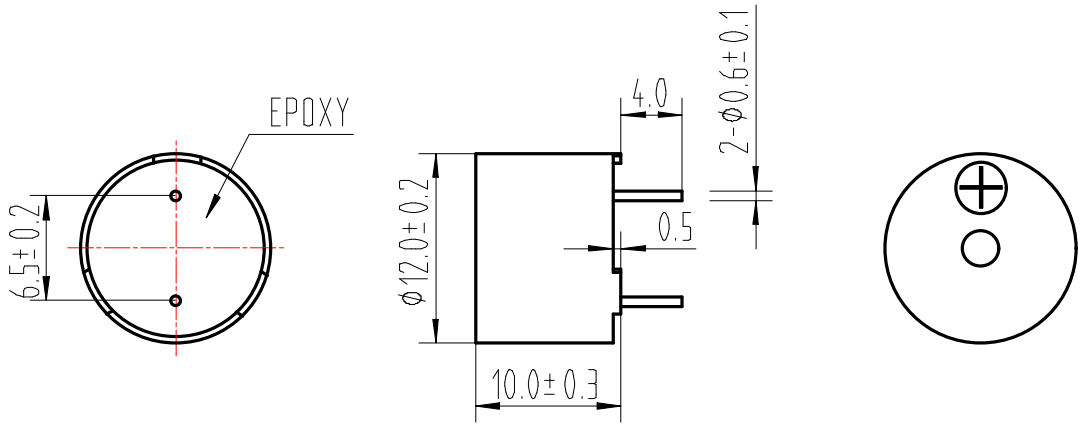
Measuring condition

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	3Vo-p
2	Operating Voltage	2-5Vo-p
3	Rated Current	Max.50mA ,at 4000Hz 50% duty Square Wave 3Vo-p
4	Sound Output at 10cm	Min. 94dB,at 4000Hz 50% duty Square Wave 3Vo-p
5	Coil Resistance	14±2Ω
6	Resonant Frequency	4000Hz
7	Operating Temperature	-20℃～+70℃
8	Store Temperature	-30℃～+80℃
9	Net Weight	Approx 1.5g
10	RoHS	Yes

2. Dimensions

Unit: mm

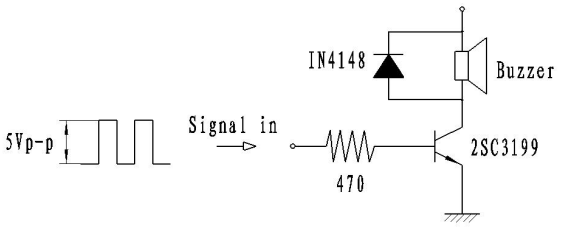


*Housing Material: Black PBT

*Unit: mm; Tolerance: ±0.5mm Except Specified

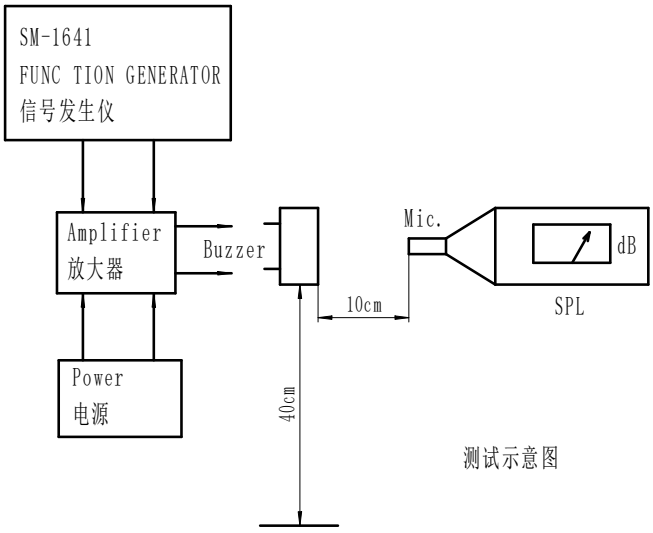
3. Electrical And Acoustical Measuring Condition

Recommended Driving Circuit



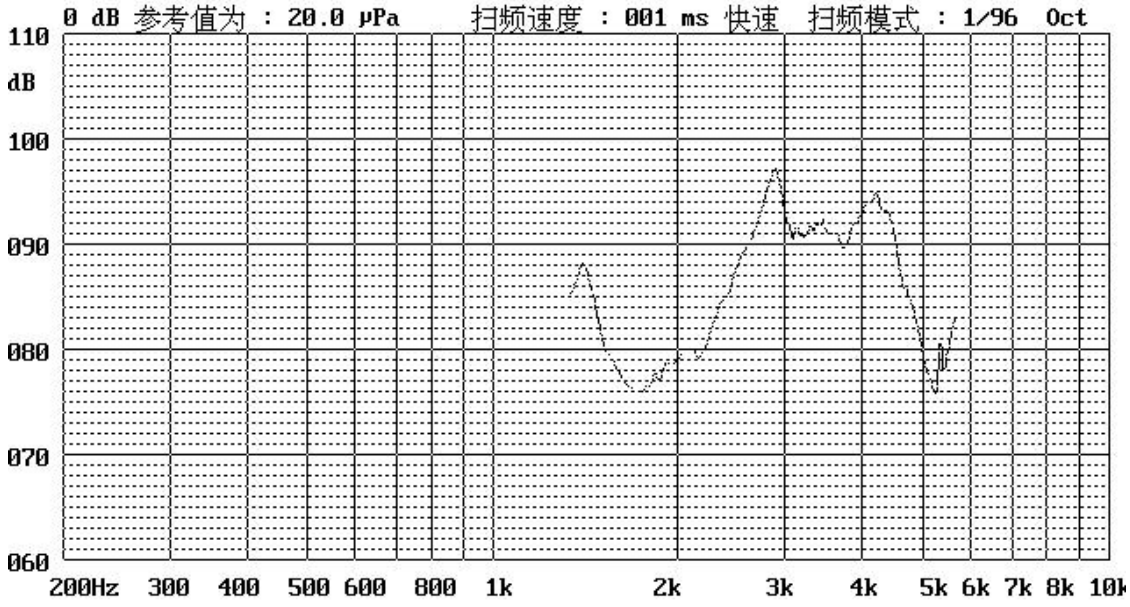
Resonant frequency, 1/2 duty cycle. Square wave. Signal amplitude should be large enough tosaturate the transistor.

Recommended Setting



测试示意图

4. Frequency Response



3Vo-p 50% duty Square wave,10cm

5.Reliability Test

After any following tests the part shall meet specifications without any degradation in appearance and performance except SPL. SPL shall not deviate more than -10 dB from the initial value

5.1 Ordinary Temperature Life Test

The part shall be subjected to 96 hours at 25±10℃. Input rated voltage Resonant frequency, 1/2 duty Square wave.

5.2 High Temperature Test

The part shall be capable of with standing a storage temperature of +80℃ for 96 hours.

5.3 Low Temperature Test

The part shall be capable of with standing a storage temperature of -30℃ for 96 hours.

5.4 Humidity Test

Temperature:+40℃±3℃ Relative Humidity:90%～95% Duration: 48 hours and expose to room temperature for 6 hours

5.5 Temperature Shock Test

Temperature:70℃ /1hour→ 25℃/3hours→-30℃/1hour→ 25℃/3hours (1cycle)
Total cycle: 10 cycles

5.6 Drop Test

Standard Packaging From 75cm(Drop on hard wood or board of 5cm thick, three sides, six plain.)

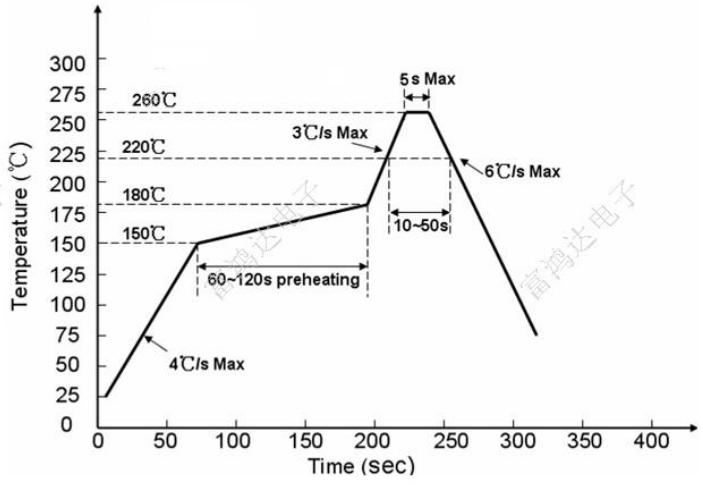
5.7 Vibration Test

Vibration:1000cycles /min. Amplitude:1.5mm, Duration: 1 hour in each 3 axes

Note:

As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign material enter it.

7. Recommended the wave soldering temperature



8. Packing

TBD