



PRODUCT SPECIFICATION

Product Name: SMD Buzzer

Part Number: SM09ES05AV3TS

Document No: _____

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DRAWING BY	CHECKED BY	APPROVED BY
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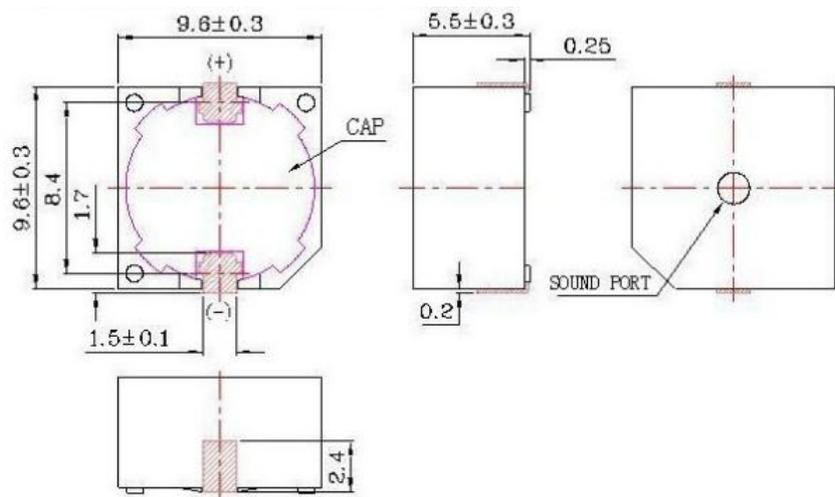
1.ELECTRICAL AND ACOUSTICAL SPECIFICATION

Operating Voltage	3Vo-p
Rated Voltage	2.5-4.5 Vo-p
Sound Output at 10cm	Min.85dB,at Rated Voltage at 10cm
Rated Current	Max.30mA ,
Resonant Frequency	2700±300Hz
Operating Temperature	-20℃ ~ +70℃
Store Temperature	-30℃ ~ +80℃
Net Weight	Approx 1.5g
RoHS	Yes

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.

2. APPEARANCE DRAWING

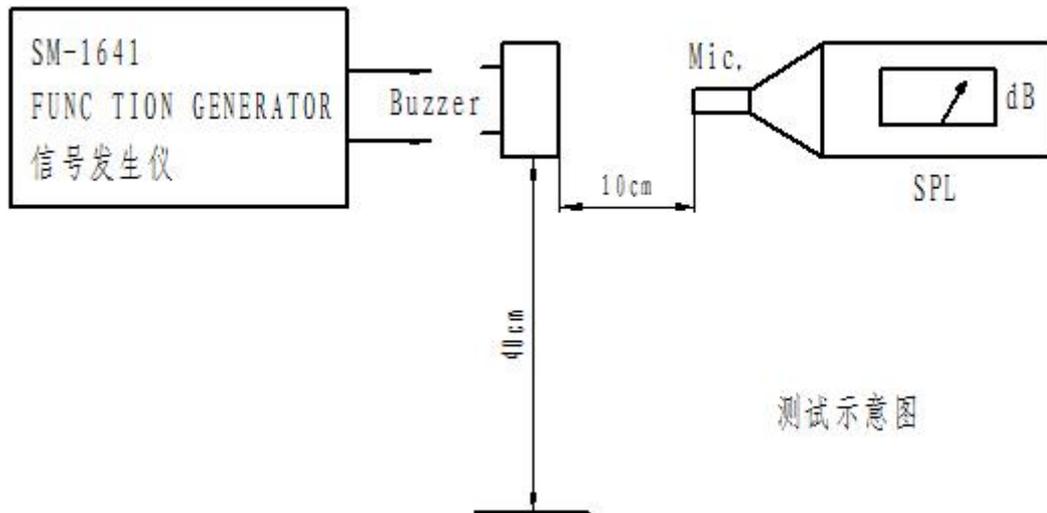


*Unit: mm; Tolerance: ± 0.3 mm Except Specified

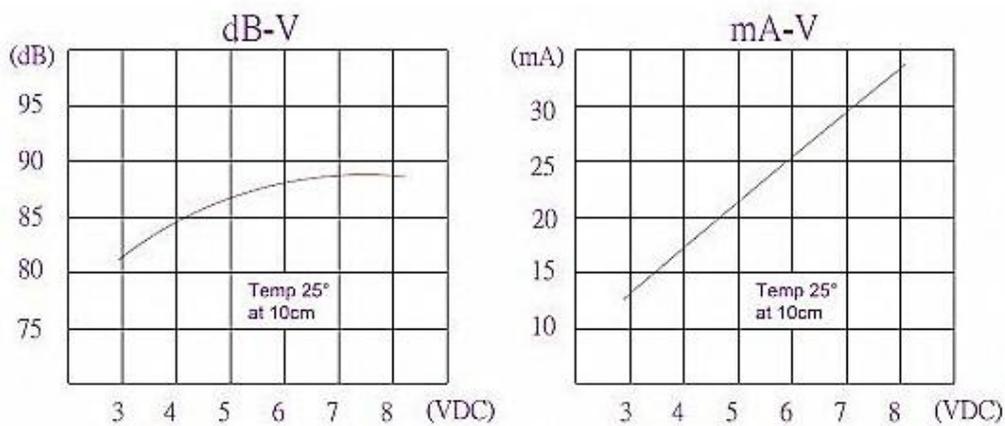
*Housing Material: Black LCP

*Terminal plate: 2 soldering pads, tin Plating Brass

3.ELECTRICAL AND ACOUSTICAL MEASURING CONDITION



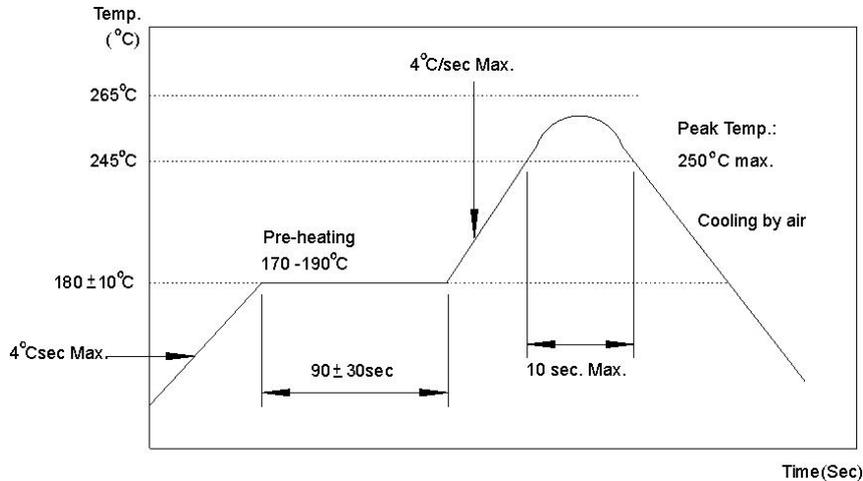
4. FREQUENCY RESPONSE CURVE



5. SURFACE MOUNTING CONDITION

5.1 Reflow soldering

Recommendable reflow soldering condition is as follows.



Note: (1) In automated mounting of the SMD sound transducers on PCB, any bending, expanding

and pulling forces or shocks against the SMD sound transducers shall be kept minimum

to prevent them from electrical failures and mechanical damages of the devices.

(2) In the reflow soldering, too high soldering temperatures and too large temperature

Gradient such as rapid heating or cooling may cause electrical failures and mechanical damages of the devices.

6. 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

6.1 Ordinary Temperature Life Test

The part shall be subjected to 96 hours at $25\pm 10^{\circ}\text{C}$. Input rated voltage Resonant frequency, 1/2 duty Square wave.

6.2 High Temperature Test

The part shall be capable of with standing a storage temperature of $+80^{\circ}\text{C}$ for 96 hours.

6.3 Low Temperature Test

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

6.4 Humidity Test

Temperature: $+40^{\circ}\text{C}\pm 3^{\circ}\text{C}$ Relative Humidity: 90%~95% Duration: 48 hours and expose to room temperature for 6 hours

6.5 Temperature Shock Test

Temperature: 60°C /1hour \rightarrow 25°C /3hours \rightarrow -20°C /1hour \rightarrow 25°C /3hours (1cycle)
Total cycle: 10 cycles

6.6 Drop Test

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

6.7 Vibration Test

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

6.8 Reflow Test

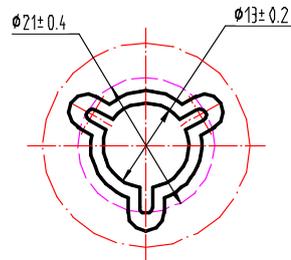
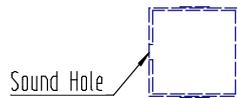
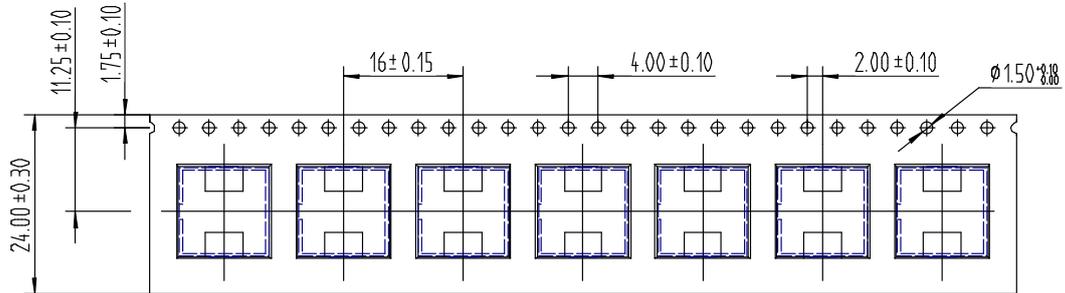
Use recommendable reflow soldering condition (as shown in 5.1)

- (1) No abnormality should be found after reflow
- (2) Good soldering to meet soldering requirements

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. PACKING STANDARD



DETAIL: A
SCALE 8:1

Tapping Direction

