

SPECIFICATION FOR APPROVAL

Customer :

Description : Piezo Audio Transducer

SOBERTON Part N. : PT-2404

Date : 2014-04-25

Customer Model No. :

Date of Approval	
Authorization	
Signature	

Soberton Inc.

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Approved	Checked	Issue
Frank 2014/04/25	Wang Cheng 2014/04/25	Song Qi 2014/04/25

1. Technical Parameter

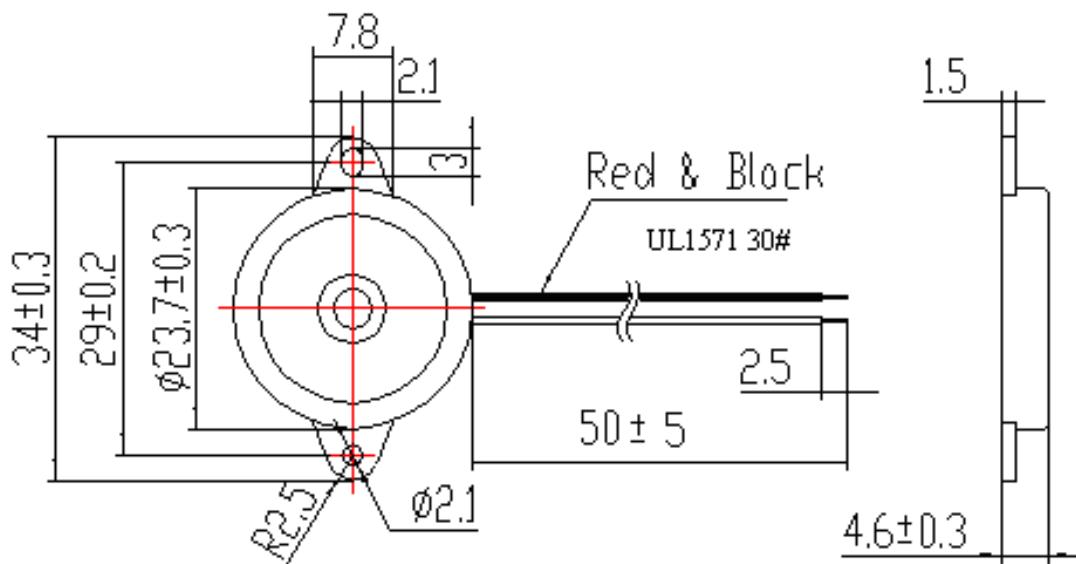
Measuring condition

Part shall be measured under a condition (Temperature: 5~35°C, Humidity: 45%~85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3°C, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~1060hPa) is regulated to measure.

1	Resonant Frequency	4800±500Hz
2	Operating Voltage	1~25 Vp-p
3	Rated Current	Max.5mA , At 4.8KHz 50% duty Square Wave 9Vp-p
4	Sound Output at 10cm	Min. 90dB, At 4.8KHz 50% duty Square Wave 9Vp-p
5	Capacitance	20000±30% pF At 1KHz
6	Operating Temperature	-20°C~+70°C
7	Store Temperature	-30°C~+80°C
8	Net Weight	Approx 3g
9	RoHS	Yes

2. Dimensions

Unit: mm

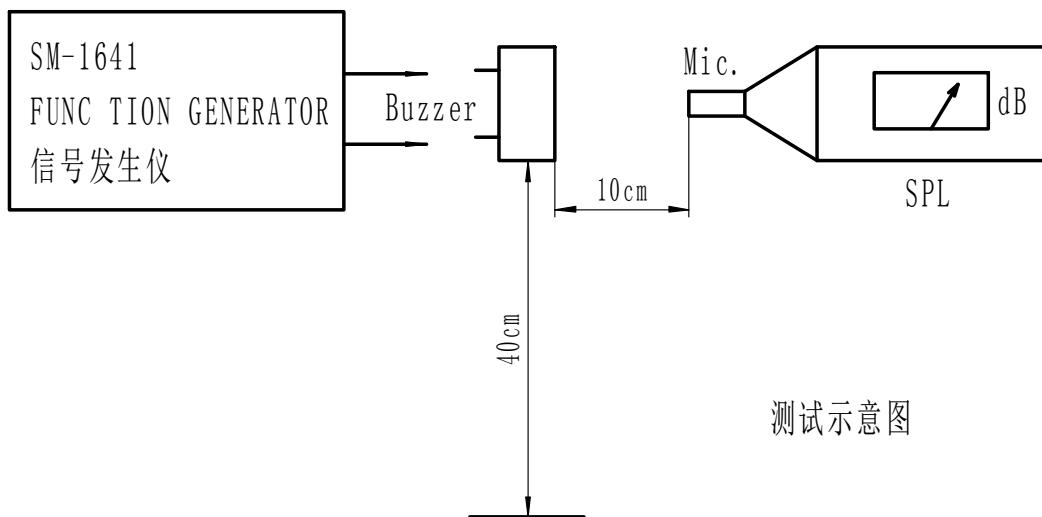


*Unit: mm; Tolerance: ±0.5mm Except Specified

*Housing Material: Black ABS

3. Electrical And Acoustical Measuring Condition

Recommended Setting



4. 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 -5 dB from the initial value

4.1 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.

4.2 High Temperature Test

The part shall be capable of with standing a storage temperature of $+70^\circ\text{C}$ for 96 hours.

4.3 Low Temperature Test

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

4.4 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

4.5 Temperature Shock Test

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

4.6 Drop Test

Standard Packaging From 1.2m(Drop on hard wood or board of 5cm thick,
three sides, six plain.)

4.7 Vibration Test

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

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 -5 dB from the initial value

5.1 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.

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The part shall be capable of withstanding a storage temperature of $+70^\circ\text{C}$ for 96 hours.

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

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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

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Temperature: 60°C /1hour $\rightarrow 25^\circ\text{C}$ /3hours $\rightarrow -20^\circ\text{C}$ /1hour $\rightarrow 25^\circ\text{C}$ /3hours (1cycle)

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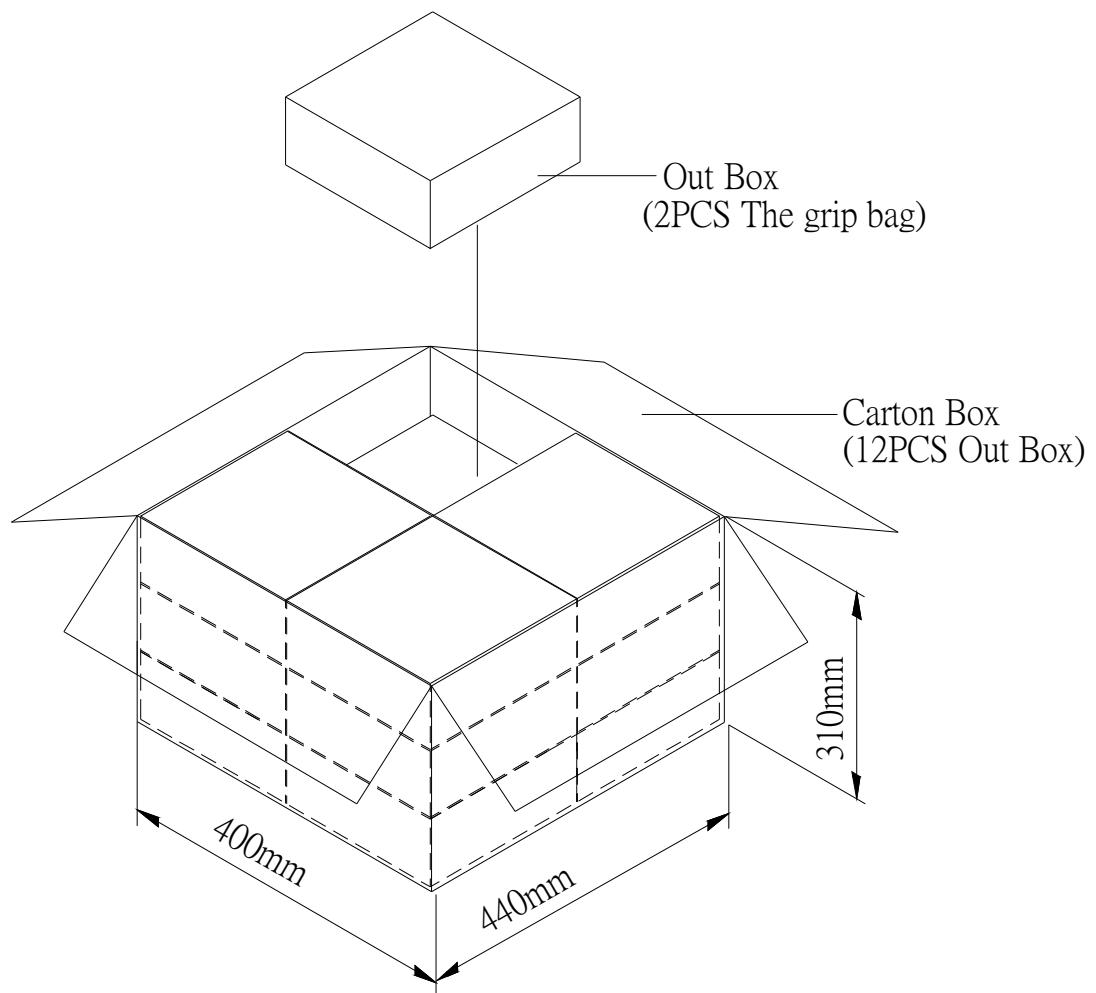
5.7 Vibration Test

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 enters it.

6.Package:



Item	Length×Width×Height(mm)	Q' ty (PC)
Plastic		50
Box	200×190×100	100
Carton	440×400×310	1200