



soberton inc.

# GT MAGNETIC BUZZER

Acoustic Product Specification

Product Number: GT-0603A-2



Release | Revision: B/2018

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## Specifications

Item	Unit	Specification	Condition
Rated Voltage	Vo-p	3.0	
Operating Voltage	Vo-p	2.0 ~ 4.0	
Mean Current	mA	80 Max.	At rated voltage
Coil Resistance	Ω	16 ± 3	
Sound Pressure Level	dB	75	At 10cm at rated voltage
Oscillation Frequency	Hz	3000	Vo-p = ½ duty , square wave
Operating Temp	°C	-20 ~ +60	
Storage Temp	°C	-30 ~ +70	
Dimension	mm	φ6.6 × H3.5	See dimension
Weight	gram	0.3	
Housing Material		PPO(Black)	
Terminal		Pin type	(Plating Au)
Environmental Protection Regulation		RoHS	

### Test condition:

Temperature: +25±2 °C    Related humidity: 65±5%    Air Pressure: 86 ~ 106KPa

## Mechanical Characteristics

Item	Test condition	Evaluation standard
Solderability	Lead terminals are immersed in rosin for 5 seconds and then immersed in the solder bath at +250±5°C for 3±1 seconds.	90% min. lead terminals shall be wet with solder. (Except the edge of terminal)
Soldering Heat Resistance	The product follows the reflow temperature curve to test its reflow thermal stability.	No interference in operation.
Terminal Mechanical Strength	The force of 9.8N is applied to each terminal in axial direction for 10 seconds.	No damage and cutting off.
Vibration	The buzzer shall be measured after a vibration of amplitude of 1.5mm with 10Hz to 55Hz band of vibration frequency is applied to each of 3 perpendicular directions for 2 hours.	The value of oscillation frequency current consumption shall be in ±10% compared with initial ones.
Drop Test	The part is dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes(X,Y,Z). A total of 9 times.	The SPL should be in ±10dB compared with initial one.



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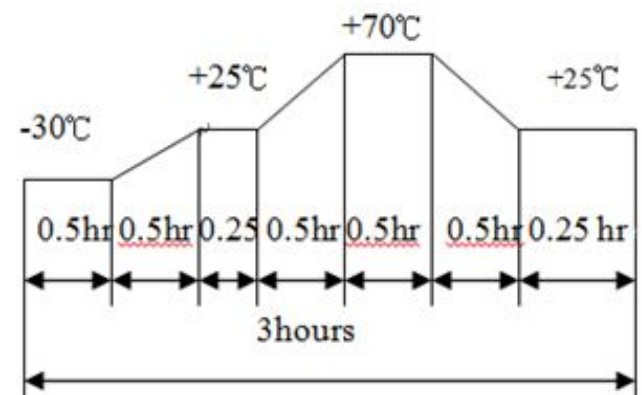
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## Environment Test

Item	Test condition	Evaluation standard
High temp. test	The part is placed in a chamber at +70°C for 96 hours.	After the test, the part shall meet specifications without any degradation in appearance and performance except SPL.
Low temp. test	The part is placed in a chamber at -30°C for 96 hours.	
Humidity test	The part is placed in a chamber at +70°C and 90±5% relative humidity for 96 hours	
Temp cycle test	The part shall be subjected to 10 cycles. Each cycle shall consist of:	



## Reliability Test

Item	Test condition	Evaluation standard
Operating Life Test	<b>1. Ordinary Temperature</b> The part shall be subjected to 96 hours of continuous operation at 25°C±10°C.	After the test, the part shall meet specifications without any degradation in appearance and performance except SPL. After 4 hours at +25°C, the SPL should be in ±10dBA compared with initial one.
	<b>2. High Temperature</b> The part shall be subjected to 72 hours of continuous operation at +60°C at 3.0V, 3000 Hz applied	
	<b>3. Low Temperature</b> The part shall be subjected to 72 hours of continuous operation at -20°C at 3.0V, 3000 Hz applied.	

### Standard test condition:

- a) Temperature: +5~+35°C
- b) Humidity: 45~85%
- c) Pressure: 86~106KPa



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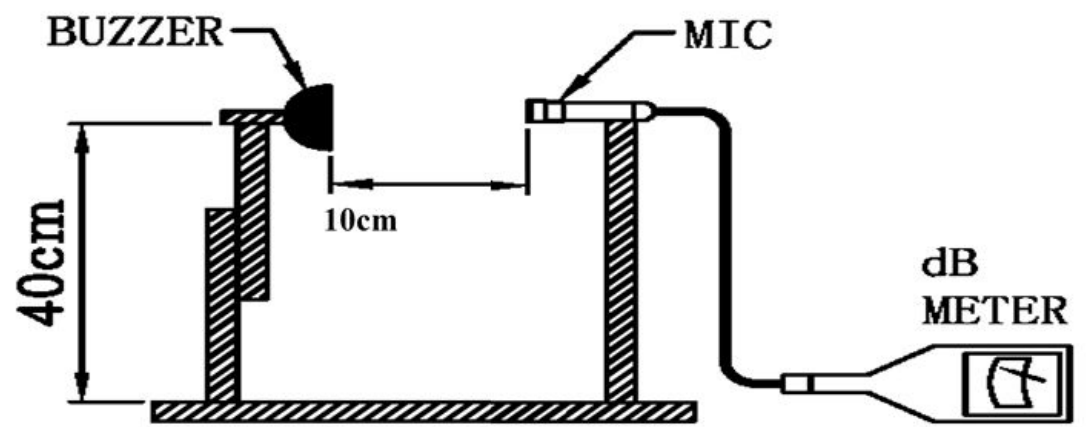
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## Measuring Method (Speaker Mode)

### S.P.L Measuring Circuit

Input Signal: 3.0 Vo-p, Square Wave, 1/2 duty, 3000 Hz



MIC: RION S.P.L meter UC30 or equivalent

S.G: Hewlett Packard 33120A Function Generator or equivalent

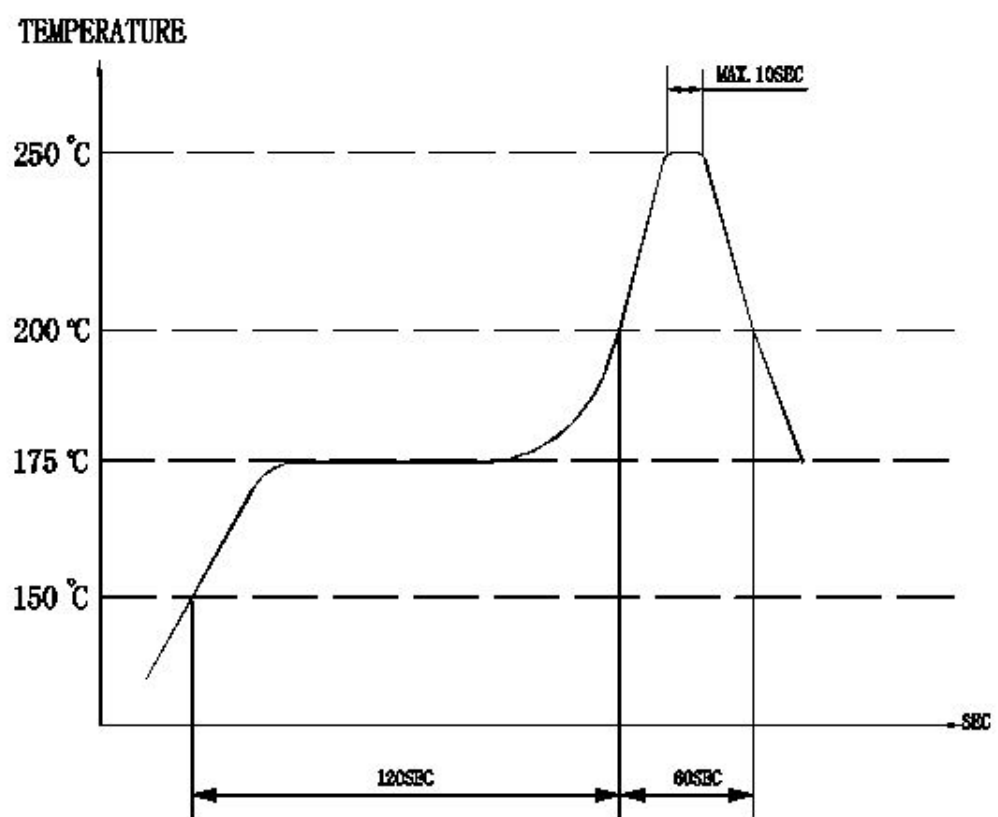
## Soldering Condition

### Soldering Condition

Recommended reflow soldering condition is as follows

Reflow soldering is twice

Note: It is requested that reflow soldering should be executed after heat of product goes down to normal temperature



Heat resistant line (Use when heat resistant reliability test is performed)

### Manual Soldering

Manual soldering temperature 350 °C within 5 sec.



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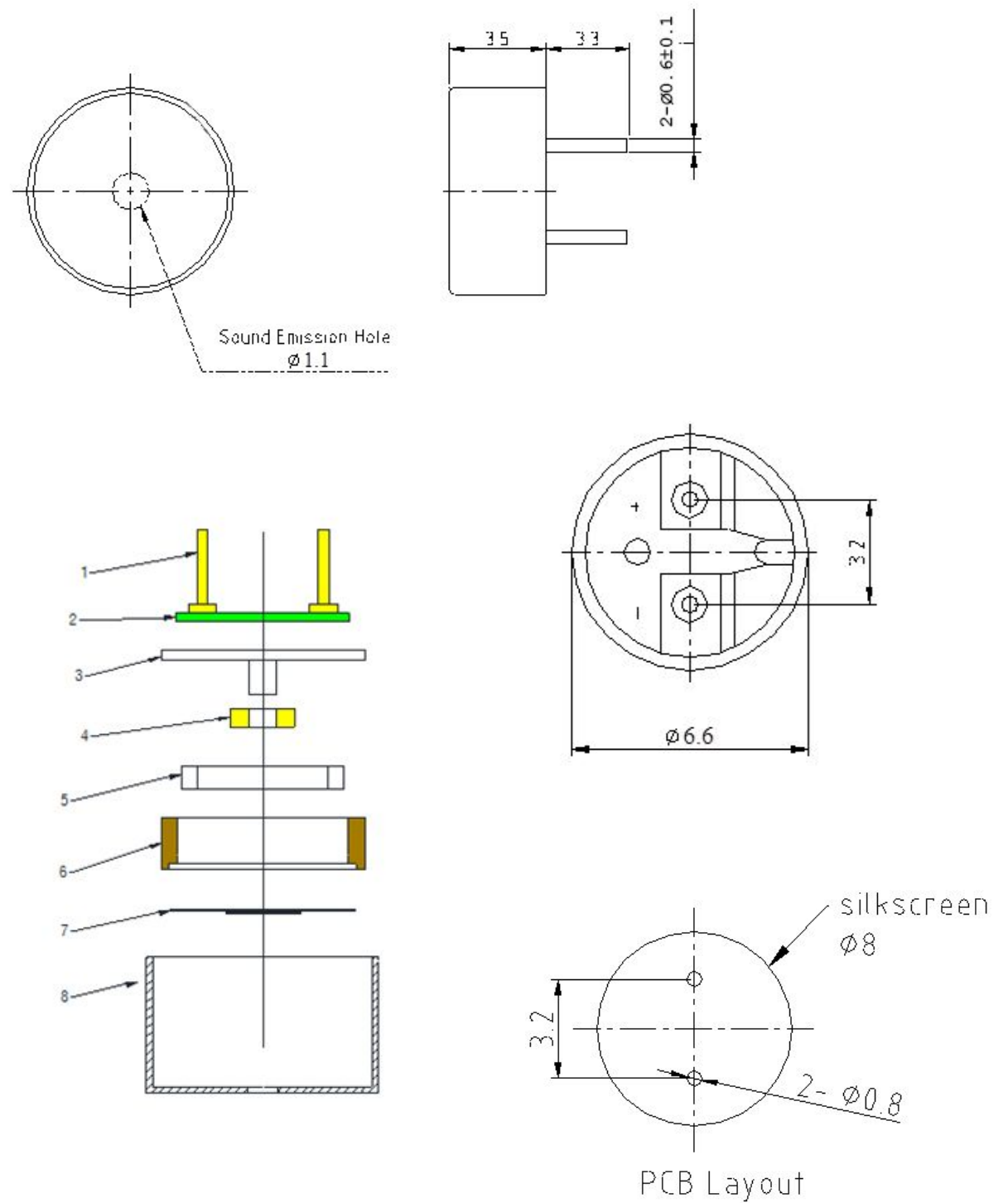
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## Dimensions

Tolerance:  $\pm 0.5$  (unit: mm)



No.	Part Name	Material	Quantity
1	PIN	Copper	2
2	PCB	Epoxy Glass Fiber Cloth + Copper	1
3	Core	Ferrum	1
4	Coil	Copper	1
5	Magnet ring	NdFeB	1
6	Copper collar	Copper	1
7	Diaphragm	Ferrum	1
8	Case	PPO	1



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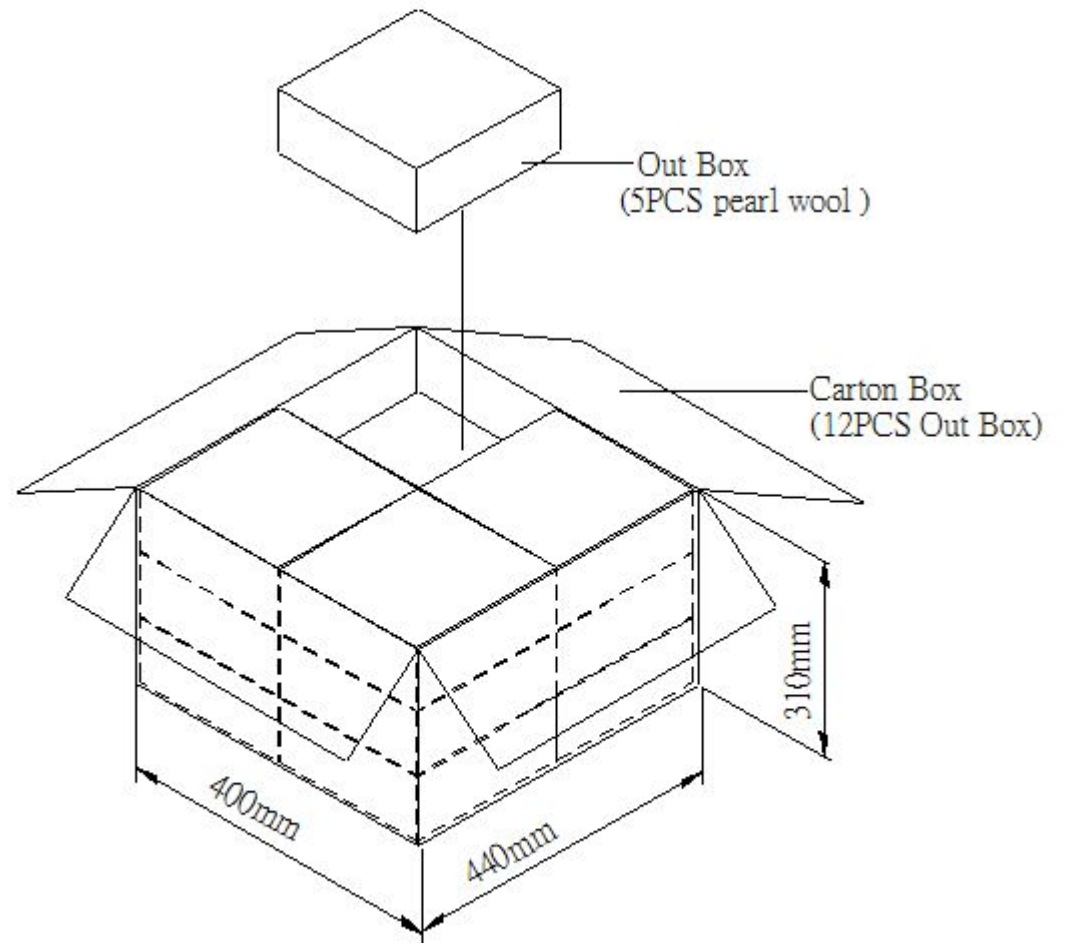
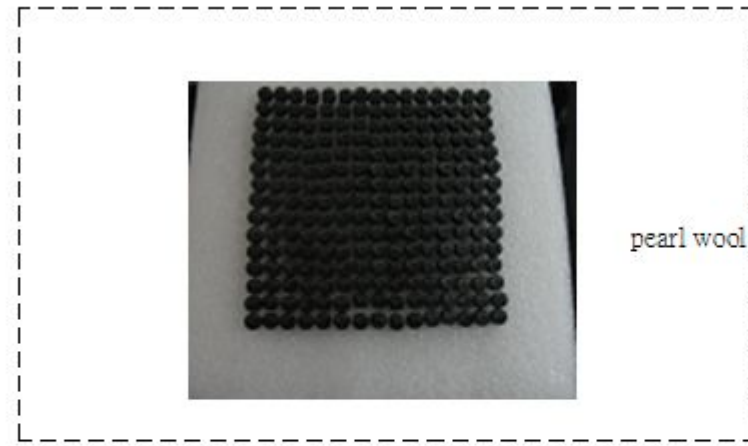
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## Details

	Size (mm)	Quantity (pcs)
Pearl wool	184 x 184 x 10	225
Inner Carton	200 x 190 x 100	1,125
Outer Carton	440 x 400 x 310	13,500