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# SPECIFICATION FOR APPROVAL

## Piezo Buzzer

Part Number	OWPB-5220PA-35-18
Note	This item is in compliance with the following requirements: 1. RoHS directive 2. REACH
Customer P/N	


Ole Wolff	Signature / Date	Prepared	Checked	Approved
		ZHUYU 20230406		

Customer	Signature / Date	Confirmation		

### REVISION NOTES:

Date	Rev.	Description of Revision
20181108	00	Initial Release
20230406	01	Updated the P/N from OWPB-5220P-35-18 to be OWPB-5220PA-35-18; Updated the marking

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## 1. SCOPE

THIS SPECIFICATION IS APPLIED TO OLE WOLFF PIEZO BUZZER UNIT OF MODEL: OWPB-5220PA-35-18

## 2. GENERAL REQUIREMENTS

OPERATING TEMPERATURE RANGE: -30°C ~ +80°C

STORAGE TEMPERATUR RANGE: -40°C ~ +85°C

## 3. MECHANICAL LAYOUT & DIMENSIONS

DIMENSIONS: SHOWN IN FIGURE 2.

WEIGHT: 14g

## 4. ELECTRICAL CHARACTERISTICS

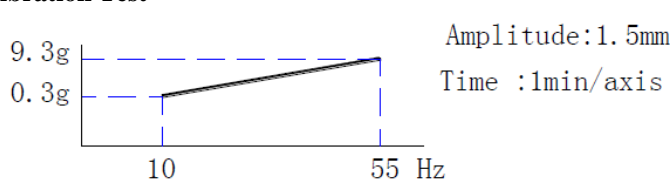
NO.	ITEM	SPECIFICATION
1	RATED VOLTAGE	18Vp-p
2	MAX.INPUT VOLTAGE	60Vp-p
3	RESONANT FREQUENCY	3500Hz
4	☆CAPACITANCE AT 120HZ	120±30%nF
5	☆* SOUND OUTPUT AT 3M	≥90dB
6	Resonant Frequency	2~4KHz
7	HOUSING MATERIAL	PA6/Black

\* Value Applying at Rated Voltage ( resonant frequency , 1/2 duty , square wave )

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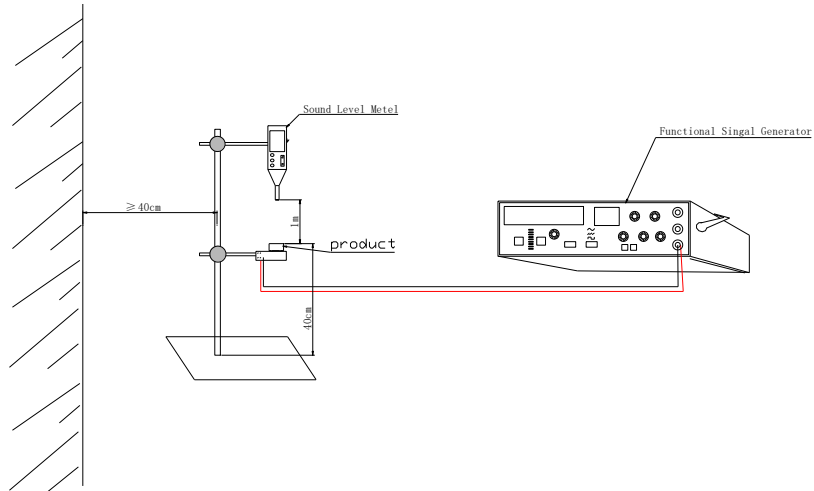
## 5. RELIABILITY TEST

<p>- <b>After Test</b> After these tests, the samples should expose to the room temperature for 2 hours without applying power. The change of S.P.L shall be within <math>\pm 5</math>dB</p>																			
<p><b>5.1 High temperature Test</b> Temperature: <math>+85\pm 2^{\circ}\text{C}</math> Duration: 96HRS</p>																			
<p><b>5.2 Low temperature Test</b> Temperature: <math>-40\pm 2^{\circ}\text{C}</math> Duration: 96HRS</p>																			
<p><b>5.3 Humidity Test</b> Temperature: <math>+40\pm 2^{\circ}\text{C}</math> Humidity: <math>93(+2/-3)\% \text{RH}</math> Duration: 96HRS</p>																			
<p><b>5.4 Temperature cycling Test</b></p> <table border="1"> <tr> <td>Temperature:</td> <td><math>-40\pm 2^{\circ}\text{C}</math></td> <td><math>+20\pm 5^{\circ}\text{C}</math></td> <td><math>+85\pm 2^{\circ}\text{C}</math></td> <td><math>+20\pm 5^{\circ}\text{C}</math></td> </tr> <tr> <td>Duration:</td> <td>30min</td> <td>15min</td> <td>30min</td> <td>15min</td> </tr> <tr> <td>Cycle:</td> <td>5 cycles</td> <td></td> <td></td> <td></td> </tr> </table>					Temperature:	$-40\pm 2^{\circ}\text{C}$	$+20\pm 5^{\circ}\text{C}$	$+85\pm 2^{\circ}\text{C}$	$+20\pm 5^{\circ}\text{C}$	Duration:	30min	15min	30min	15min	Cycle:	5 cycles			
Temperature:	$-40\pm 2^{\circ}\text{C}$	$+20\pm 5^{\circ}\text{C}$	$+85\pm 2^{\circ}\text{C}$	$+20\pm 5^{\circ}\text{C}$															
Duration:	30min	15min	30min	15min															
Cycle:	5 cycles																		
<p><b>5.5 Vibration Test</b></p>  <p>Amplitude: 1.5mm Time: 1min/axis</p> <p>Make this test for the directions of X,Y, Z for 2 hours each (total 6 hours).</p>																			
<p><b>5.6 Drop Test</b> Height: 70cm Drop Face: 10mm thick wooden board. Times: 3 times</p>																			
<p><b>5.7 Solderability Test</b> Soldering temp.: <math>260\pm 5^{\circ}\text{C}</math> Heat applying time: <math>3\pm 0.5</math>sec.</p>																			

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## 6. TEST METHOD (Figure 1)

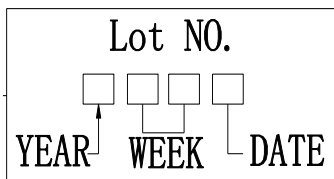
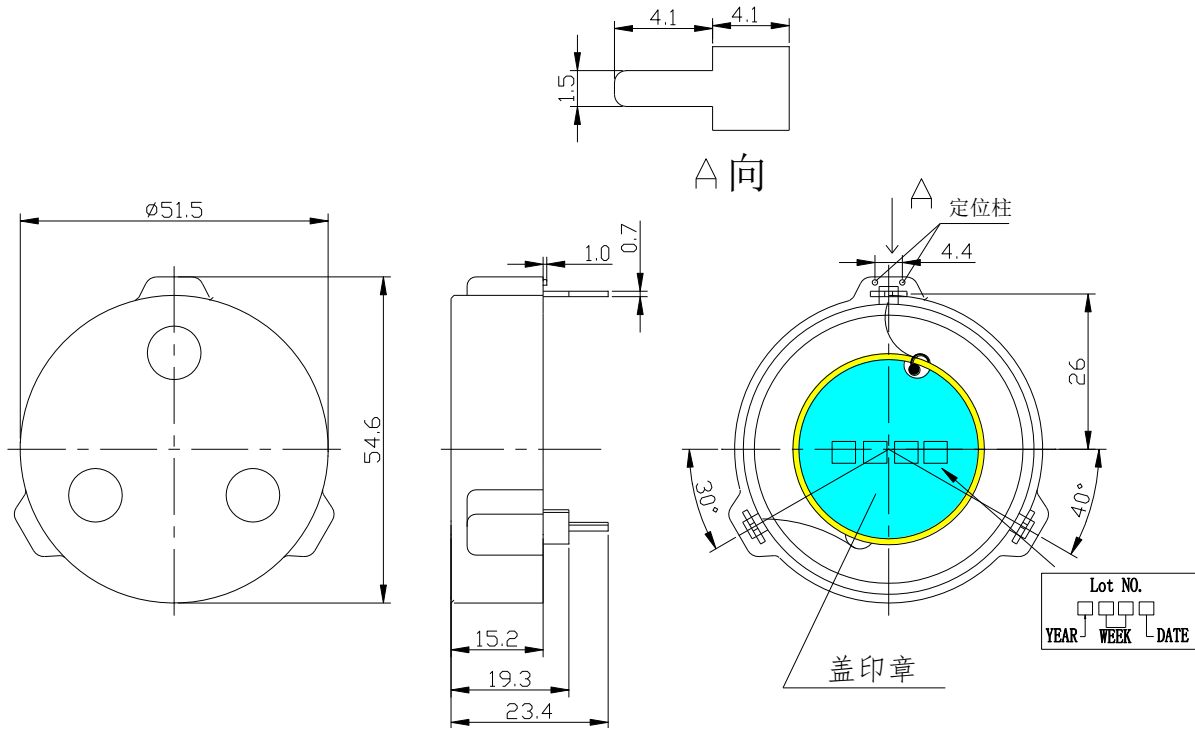


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## 7. DIMENSIONS (Figure 2)

Tolerance: ±0.5mm Except Specified



Y (YEAR)		WW (WEEK)		D (DATE)	
year	marking	week	marking	date	marking
2020	0	1	1	MON	1
2021	1	↓	↓	TUE	2
2022	2			WED	3
2023	3			THU	4
2024	4	50	50	FRI	5
2025	5	51	51	SAT	6
2026	6	52	52	SUN	7
		53	53		

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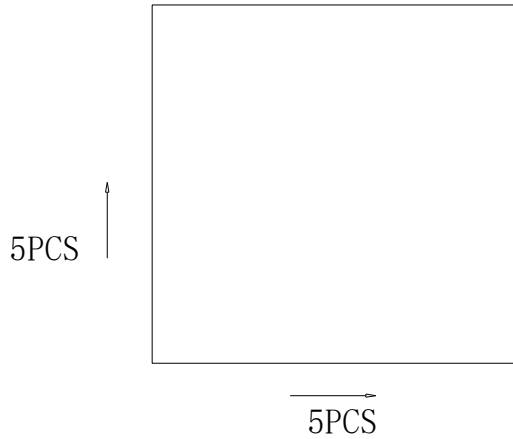
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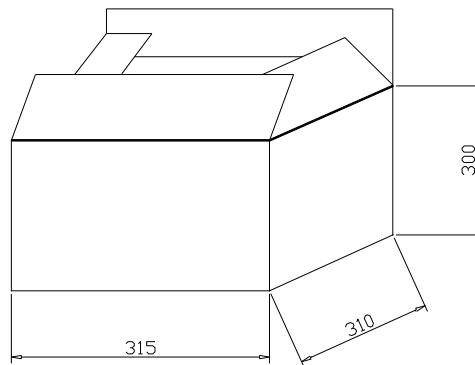
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**8. PACKING (Figure 3)**



$5 \times 5 \text{PCS} = 25 \text{PCS/box}$



250PCS/CTN

**NOTES:**

1. 25PCS per box
2. Total 10 boxes per carton
3. Total 250PCS carton

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