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will////willim soberton inc. PB PIEZO AUDIO BUZZER

Acoustic Product Specification

Product Number: PB-3214NL



Release | Revision: B/2018

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This document contains the technical specifications for the piezo audio buzzer.

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Specifications			
Item	Unit	Specification	Condition
Rated Voltage	VDC	12.0	
Operating Volt	VDC	3.0 ~ 24.0	
Mean Current	mA	15 Max.	At 12.0 VDC
Sound Output	dBA	90	At 30cm/12.0 VDC
Resonant Frequency	Hz	3700 ±500	
Operating Temp	°C	-20 ~ +60	
Storage Temp	°C	-20 ~ +70	
Dimension	mm	32.0 × 14.0	WIRE 150mm UL1007 / AWG26#
Weight	gram	8	
Material		ABS (black)	
Terminal		Wire type	See attached drawing
Environmental Protection Regulation		RoHS	

Test condition:

Temperature: +25±2 °C **Related humidity:** 65±5%

	Mechanical Characteristics	
Item	Test condition	Evaluation standard
Lead Wire Pull Strength	The pull force will be applied to double lead wire : Horizontal: 3.0N(0.306kg) for 30 seconds. Vertical: 2.0N(0.204kg) for 30 seconds.	No damage and cutting off
Vibration	Buzzer will be measured after being applied vibration of amplitude of 1.5mm with 10Hz to 55Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours.	The value of oscillation frequency/ current consumption would be in ±10% compared with initial ones.
Drop test	The part only will be dropped from a height of 70cm onto a	 The SPL would be in ±10dB compared with initial one.

Page 5 Packing 40mm thick wooden board 3 times in 3 axes(X,Y,Z). A total of 9 times.

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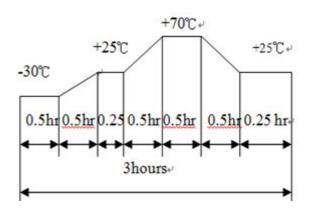
Reliability Test

Page 3 Measuring Method (Speaker Mode)

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Environment Test			
ltem	Test condition	Evaluation standard	
High temp. test	After being placed in a chamber at +70°C for 96 hours	Being placed for 4 hours at +25°C, buzzer will be measured. The value of oscillation, frequency / current consumption would be in $\pm 10\%$ compared with initial ones. The SPL would be in ± 10 dB compared with initial one.	
Low temp. test	After being placed in a chamber at -30°C for 96 hours		
Humidity test	After being placed in a chamber at +70°C and 90±5% relative humidity for 96 hours		
Temp cycle test	The part will be subjected to 5 cy	/cles.	

One cycle shall consist of:



Reliability Test			
Item	Test condition	Evaluation standard	
Operating life test	 Continuous life test 48 hours continuous operation at +55°C with maximum rated voltage applied Intermittent life test A duty cycle of 1 minute on, 1 minutes off, a minimum of 1000 times at +25±2°C and maximum rated voltage 	After test, the part will meet specifications without any degradation in appearance and performance except SPL, after 4 hours at +25°C.	
	applied	The SPL would be in±10dBA compared with initial one.	

Standard test condition:

a) Temperature: +5~+35°C

b) Humidity: 45~85%

Page 5 Packing

c) Pressure: 860~1060mbar

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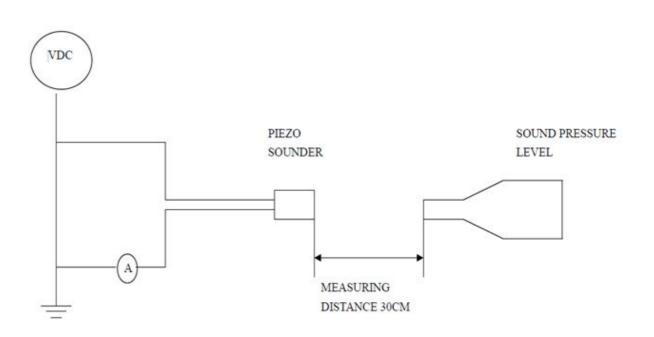
Page 3 Measuring Method (Speaker Mode)

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Measuring Method (Speaker Mode)

S.P.L Measuring Circuit

Input Signal: 12.0 VDC



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



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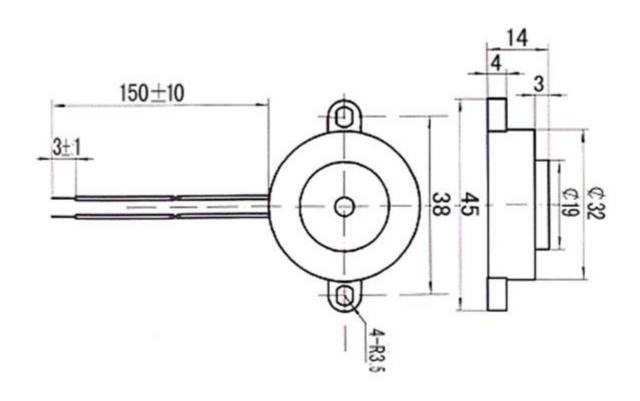
Mechanical Characteristics

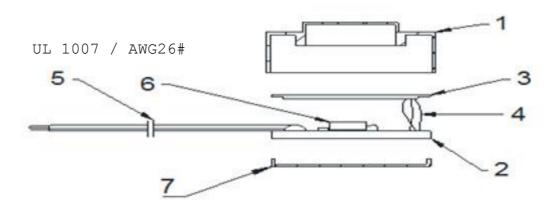
Page 2 Environment Test

Reliability Test

Page 3 Measuring Method (Speaker Mode)

Page 4 Dimensions Tolerance: ±0.5 (unit: mm)





No.	Part Name	Material	Quantity
1	Case	ABS	1
2	РСВ	Ероху	1
3	Piezo	Brass + Ceramic	1
4	Wire	Copper	3



5	Wire	UL 1007 AWG26#	2

6 Transistor Epoxy + Copper

7 Cover ABS 1

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Details		
	Size (mm)	Quantity (pcs)
Carton	430 x 320 x 280	1000



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