m soberton inc. **PB PIEZO AUDIO** BUZZER

Acoustic Product Specification

Product Number: PB-2410-1



Release | Revision: C/2018

CONTENTS

This document contains the

	Sp	ecifications	
Item	Unit	Specification	Condition
Rated Voltage	VDC	12.0	
Operating Voltage	VDC	6.0 ~ 15.0	0V ↓ VDC
Mean Current	mA	30 Max.	At rated voltage
Sound Output	dB	86	At 10cm at rated voltage.
Rated Frequency	Hz	3500±500	
Operating Temp	°C	-20 ~ +70	
Storage Temp	°C	-30 ~ +80	
Dimension	mm	Ø23.3xH9.5	See attached drawing.
Weight	gram	3.0	
Material		PPO(Black)	
Terminal		Pin type (Plating Sn)	See attached drawing.
Environmental Protection Regulation		RoHS	

Test condition:

Temperature: +25±2°C **Related Humidity:** 65±5% **Air Pressure:** 86-106KPa

technical specifications for the Piezo Audio Buzzer.		Mechanical Characteristics	
	ltem	Test Condition	Evaluation Standard
Page 1			
Specifications	Solderability	Lead terminals are immersed in rosin for 5 seconds and then	90% min. lead terminals shall be we
Mechanical Characteristics		immersed in the solder bath at +250±5°C for 3±1 seconds.	with solder. (Except the edge of
Page 2			terminal)
Environment Test			
Reliability Test	Soldering Heat Resistance	Lead terminals are immersed in the soldering bath at +250±5°C for 3±1 seconds. The force of	No interference in operation.
Page 3		9.8N(1.0Kg) is applied to the part	
Inspection Fixture		for 10 seconds.	
Frequency Response	Terminal Mechanical Strength	The force of 9.8N is applied to each terminal in axial direction	No damage and cutting off.
Recommended Wave Soldering		for 10 seconds.	
Temperature Curve	Vibration	The buzzer shall be measured	The value of
Page 4		after a vibration of amplitude of	oscillation frequenc
Dimensions		1.5mm with 10Hz to 55Hz band of vibration frequency is applied	current consumptio should be in±10%
Page 5		to each of 3 perpendicular	compared with initia
Packing		directions for 2 hours	ones. The SPL should be in±10dB compare
	Drop Test	The part is dropped from a height	with initial one.

The part is dropped from a height with initial one. of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X,Y,Z). A total of 9 times.

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Mechanical Characteristics

Page 2 **Environment Test**

Reliability Test

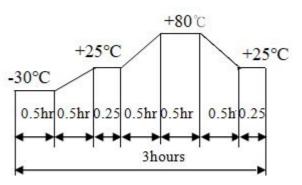
Page 3 Inspection Fixture

Frequency Response

Recommended Wave Soldering Temperature Curve

	Environment Test		
ltem	Test Condition	Evaluation Standard	
High Temp. Test	The part is placed in a chamber at +80°C for 96 hours.	After the test, the part shall meet specifications without any degradation in appearance and	
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 +80°C, and 90±5% relative humidity for 96 hours.	performance except SPL. After 4 hours at +25°C ±2°C, the SPL should be in ±10dBA compared with initial one.	
Temp/Humidity	The part shall be subjected to 5 c	ycles,	

Each cycle shall consist of:



	Reliability Test	
Item	Test Condition	Evaluation Standard
Operating Life Test	 1. Continuous Life Test 48 hours of continuous operation at +55°C with the maximum rated voltage applied 2. Intermittent Life Test A duty cycle of 1 minute on, 1 minute off, a minimum of 1000 times at +25±2°C and the maximum rated voltage applied 	After the test, the part shall meet specifications without any degradation in appearance and performance except SPL. After 4 hours at $+25^{\circ}$ C $\pm 2^{\circ}$ C, the SPL should be in ± 10 dBA compared with initial one.

Standard Test Condition:

Cycle

a) Temperature: +5~+35°C

b) Humidity: 45~85%

Page 4 Dimensions

Page 5 Packing

c) Pressure: 86~106KPa

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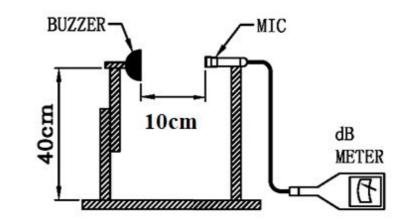
Page 1 **Specifications**

Inspection Fixture

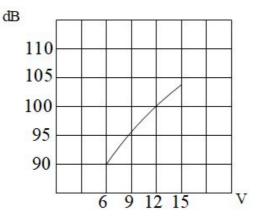
S.P.L Measuring Circuit

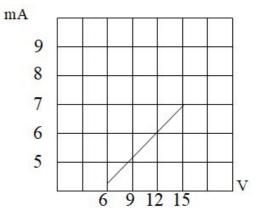
Input Signal: 12 VDC

MIC: S.P.L meter TES1351B or equivalent

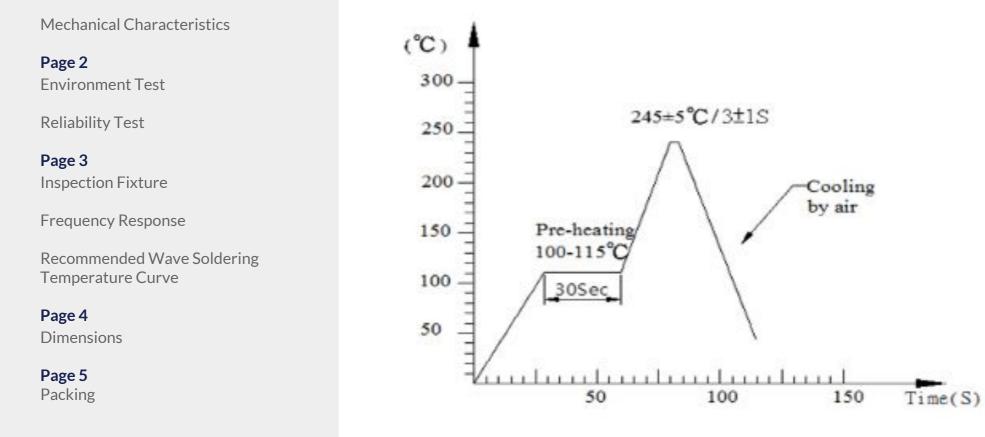


Frequency Response





Recommended Wave Soldering Temperature Curve



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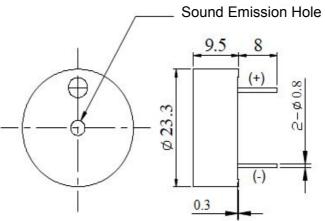
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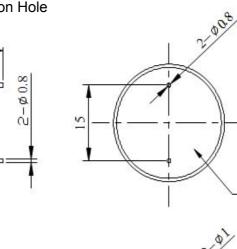
Frequency Response

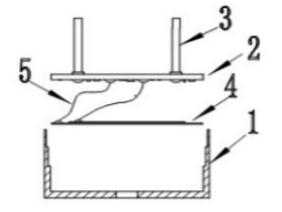
Recommended Wave Soldering Temperature Curve

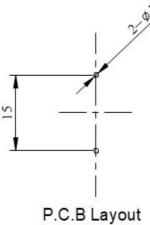
Dimensions

Tolerance: ±0.5 (unit: mm)









Epoxy

No.	Part Name	Material	Quantity
1	Case	PPO	1
2	PCB	Ероху	1
3	PIN	Copper	2
4	Piezo	Brass + Ceramic	1
5	Wire	Copper	2

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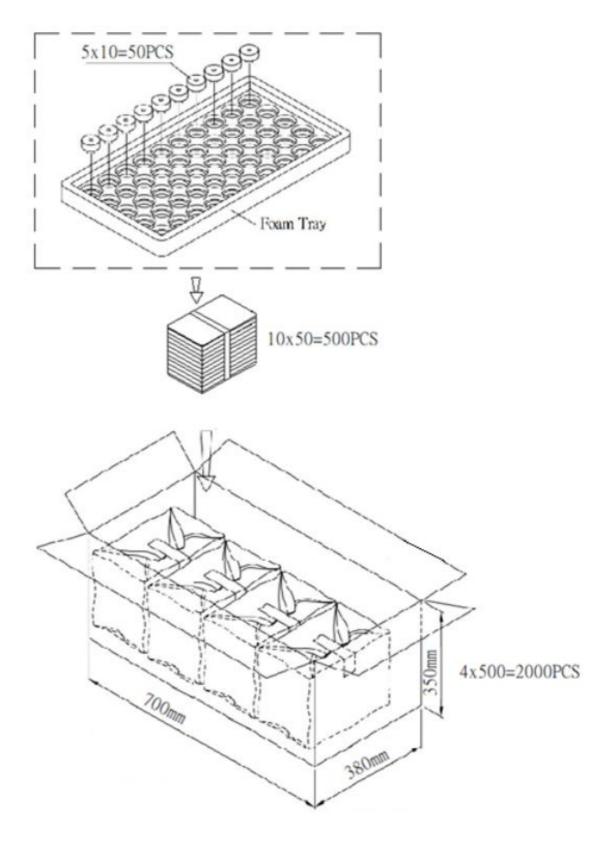
Reliability Test

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Recommended Wave Soldering Temperature Curve

Packing



	Details	
Foam Tray	320 x 170 x 25mm	1 x 50pcs = 50pcs
Carton Box	700 x 380 x 350mm	4 x 500pcs = 2,000pcs

Page 4
Dimensions

Page 5 Packing

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