

soberton inc.

PT PIEZO AUDIO TRANSDUCER

Acoustic Product Specification

Product Number: PT-1407



Release | Revision: C/2018

CONTENTS

This document contains the technical specifications for the Piezo Audio Transducer.

Page 1

Specifications

Mechanical Characteristics

Page 2

Environment Test

Reliability Test

Page 3

Inspection Fixture

Frequency Response

Recommended Wave Soldering Temperature Curve

Page 4

Dimensions

Page 5

Packing

Specifications				
Item	Unit	Specification	Condition	
Rated Voltage	Vp-p	5.0		
Operating Voltage	Vp-p	1~20	0V → Vp-p	
Mean Current	mA	2 Max.	At rated voltage	
Capacitance at 30Hz	рF	12000±30%		
Sound Output	dB	80	At 10cm at rated voltage.	
Rated Frequency	Hz	4000±500		
Operating Temp	°C	-20 ~ +70		
Storage Temp	°C	-30 ~ +80		
Dimension	mm	Ø13.8xH6.8	See attached drawing.	
Weight	gram	0.5		
Material		PBT(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

	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	Lead terminals are immersed in the soldering bath at +250±5°C for 3±1 seconds.	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 should be in ±10% compared with initial ones. The SPL should be in	
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.	±10dB compared with initial one.	



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Page 1

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Mechanical Characteristics

Page 2

Environment Test

Reliability Test

Page 3

Inspection Fixture

Frequency Response

Recommended Wave Soldering Temperature Curve

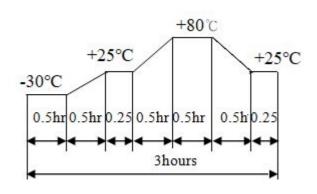
Page 4

Dimensions

Page 5

Packing

Environment Test			
Item	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	
Low Temp. Test	The part is placed in a chamber at -30°C for 96 hours.	 without any degradation in appearance and 	
Humidity Test	The part is placed in a chamber at +70°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 Cycle	The part shall be subjected to 5 co	ycles,	



Reliability Test			
Item	Test Condition	Evaluation Standard	
Operating Life Test	 Continuous Life Test hours of continuous operation at +55°C with the maximum rated voltage applied. Intermittent Life Test duty cycle of 1 minute on, minute off, a minimum of 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°C ±2°C, the SPL should be in ±10dBA compared with initial one.	

Standard Test Condition:

a) Temperature: +5~+35°C

b) Humidity: 45~85%

c) Pressure: 86~106KPa



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CONTENTS

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Page 1

Specifications

Mechanical Characteristics

Page 2

Environment Test

Reliability Test

Page 3

Inspection Fixture

Frequency Response

Recommended Wave Soldering Temperature Curve

Page 4

Dimensions

Page 5

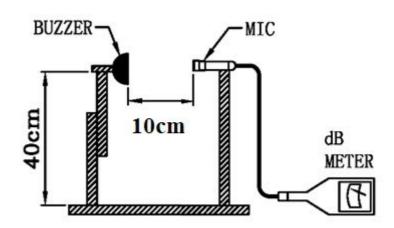
Packing

Inspection Fixture

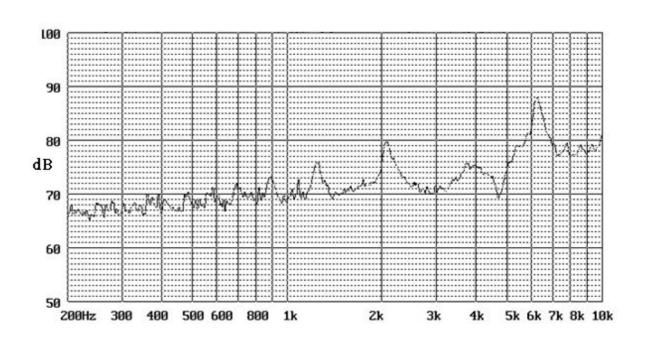
S.P.L Measuring Circuit

Input Signal: 5.0 Vp-p, square wave, 4000Hz MIC: S.P.L meter TES1351B or equivalent

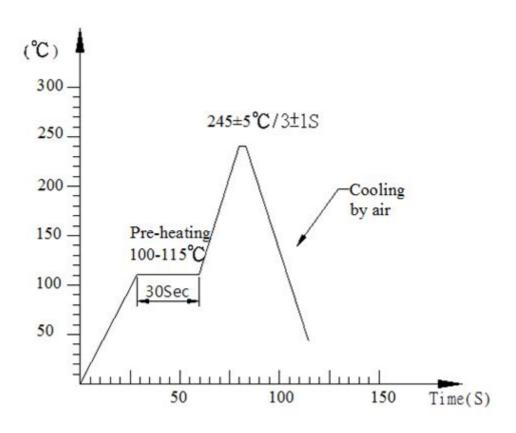
S.G: Hewlett Packard 33120A Function Generator or equivalent



Frequency Response



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Page 1

Specifications

Mechanical Characteristics

Page 2

Environment Test

Reliability Test

Page 3

Inspection Fixture

Frequency Response

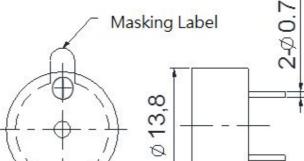
Recommended Wave Soldering Temperature Curve

Page 4

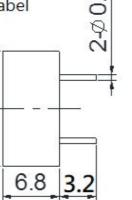
Dimensions

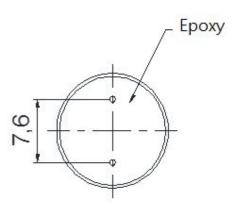
Page 5

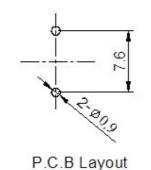
Packing



Tolerance: ±0.5 (unit: mm)

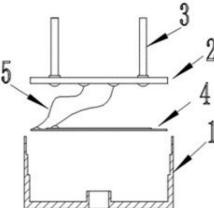






1

2



	V//////		
No.	Part Name	Material	Quantity
1	Case	PBT	1
2	PCB	Ероху	1
3	PIN	Copper	2

Brass + Ceramic

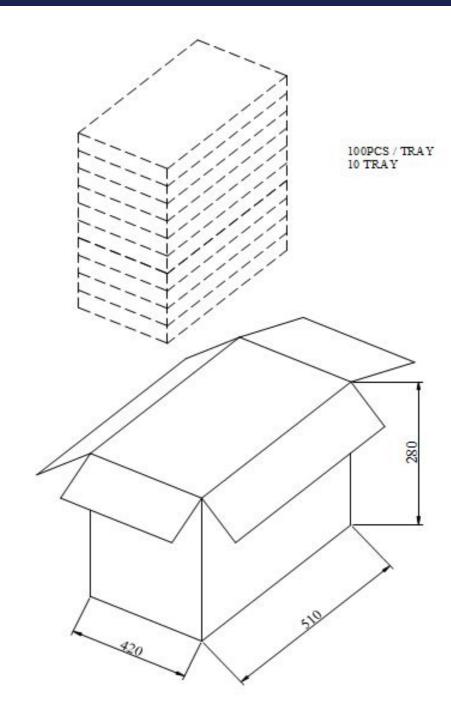
Copper

4

5

Piezo

Wire



Packing Box	LxWxH(mm)	Quantity (pcs)
Tray	240 x 160 x 28	100
10 Trays	240 x 160 x 280	1,000
Carton	510 x 420 x 280	5,000

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Page 3

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Frequency Response

Recommended Wave Soldering Temperature Curve

Page 4

Dimensions

Page 5

Packing

