



# PUI audio



Data Sheet

AI-1223-TWT-12V-R

## Features:

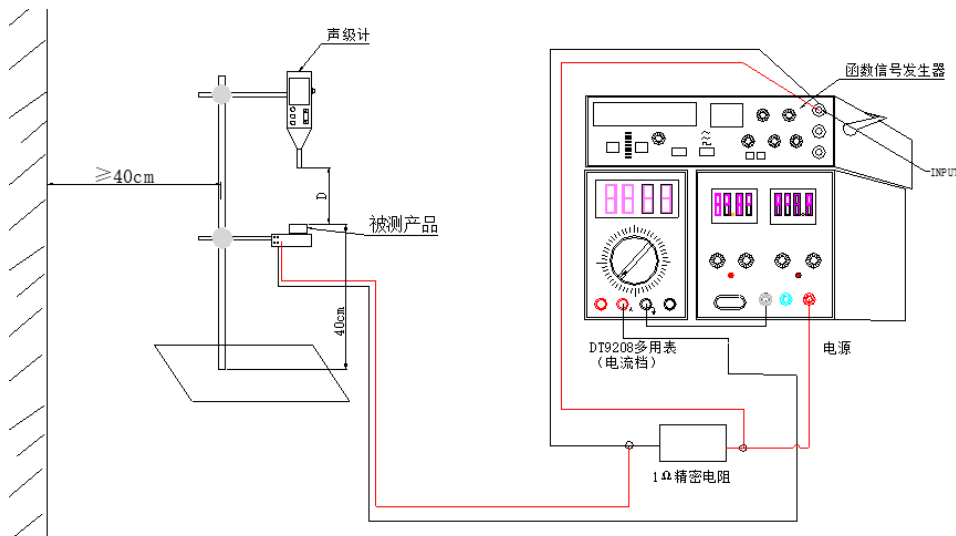
- Top-firing, thru-hole magnetic indicator
- 12 V<sub>DC</sub>, 2300Hz resonant frequency
- Wave solder and wash allowed

## Specifications

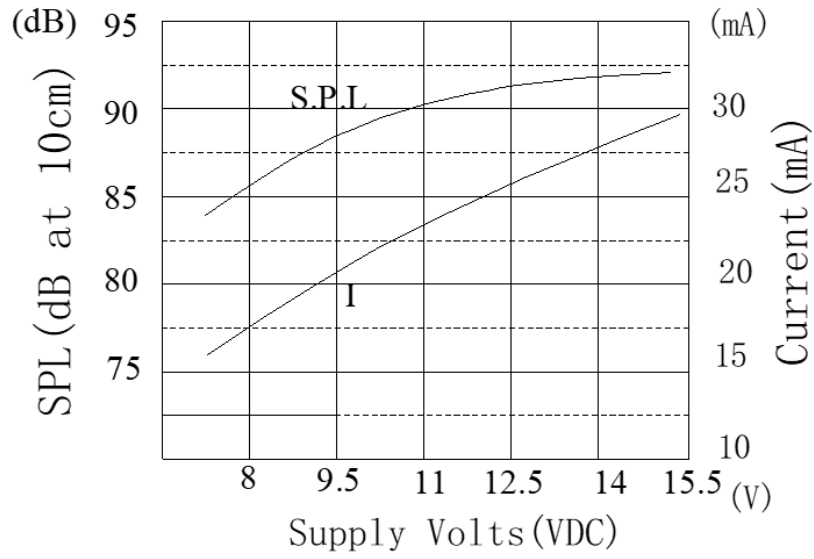
Parameters	Values	Units
Rated Voltage	12	V <sub>DC</sub>
Operating Voltage Range	8 ~ 16	V <sub>DC</sub>
Current Draw at Rated Voltage	30	mA
Minimum SPL @ 10cm	85	dBA
Resonant Frequency	2,300±400	Hz
Tone or Pulse Rate	Continuous	-
Housing Material	PBT	-
Terminal Material	Sn Plated Red Copper(DSn)	-
Weight	2	Grams
Acceptable Soldering Methods	Hand Solder, Wave Solder	-
Environmental Compliances	RoHS/REACH	-
Storage Temperature	-40 ~ +85	°C
Operating Temperature	-30 ~ +80	°C

## Measurement Method (Temperature: 25±3°C; Relative Humidity: 60% ~ 70%)

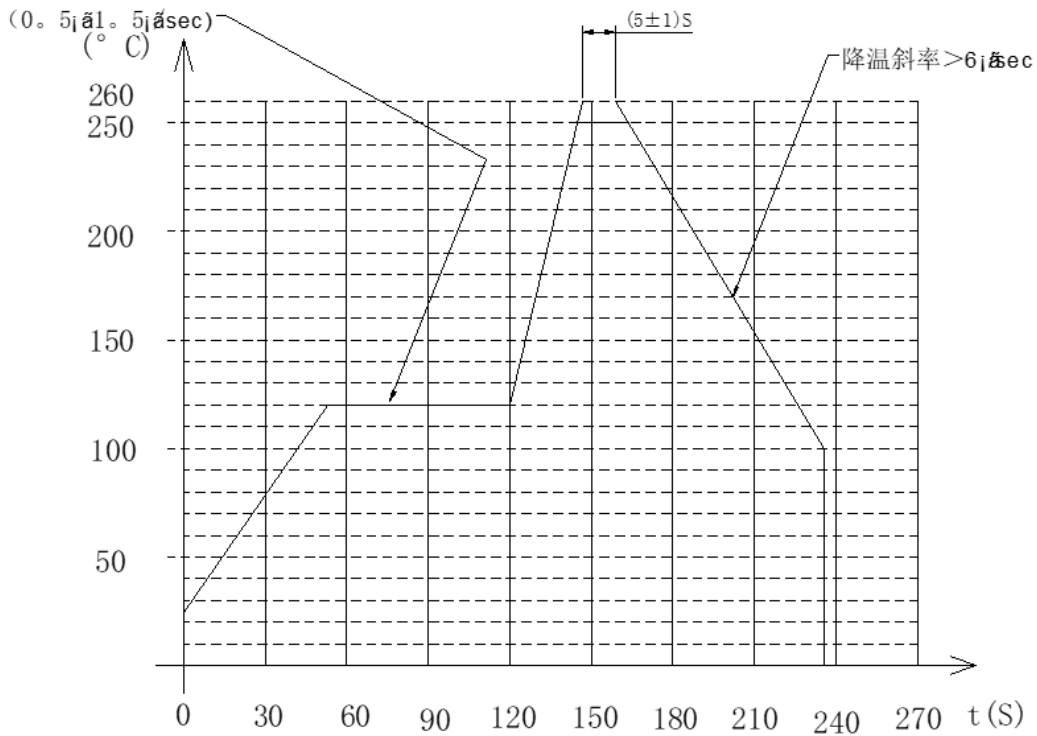
Standard test fixture (Distance: 10cm; Voltage: 12V<sub>DC</sub>)



## Typical SPL Vs Voltage



## Recommended Wave Soldering Profile

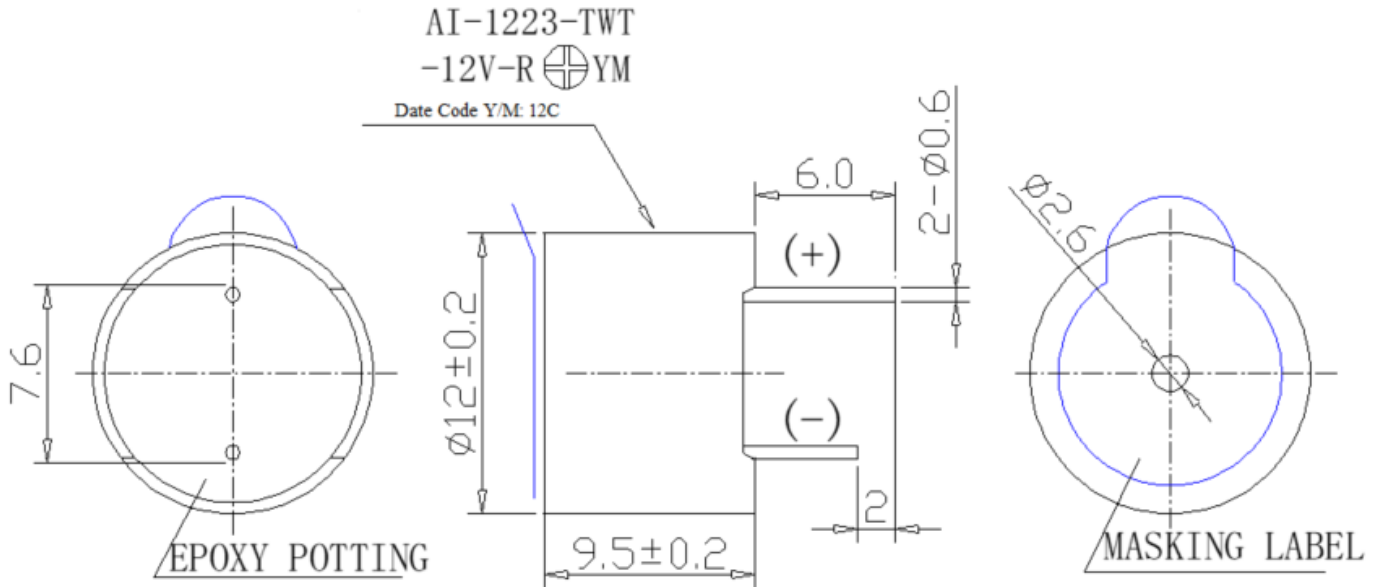


## Reliability Testing

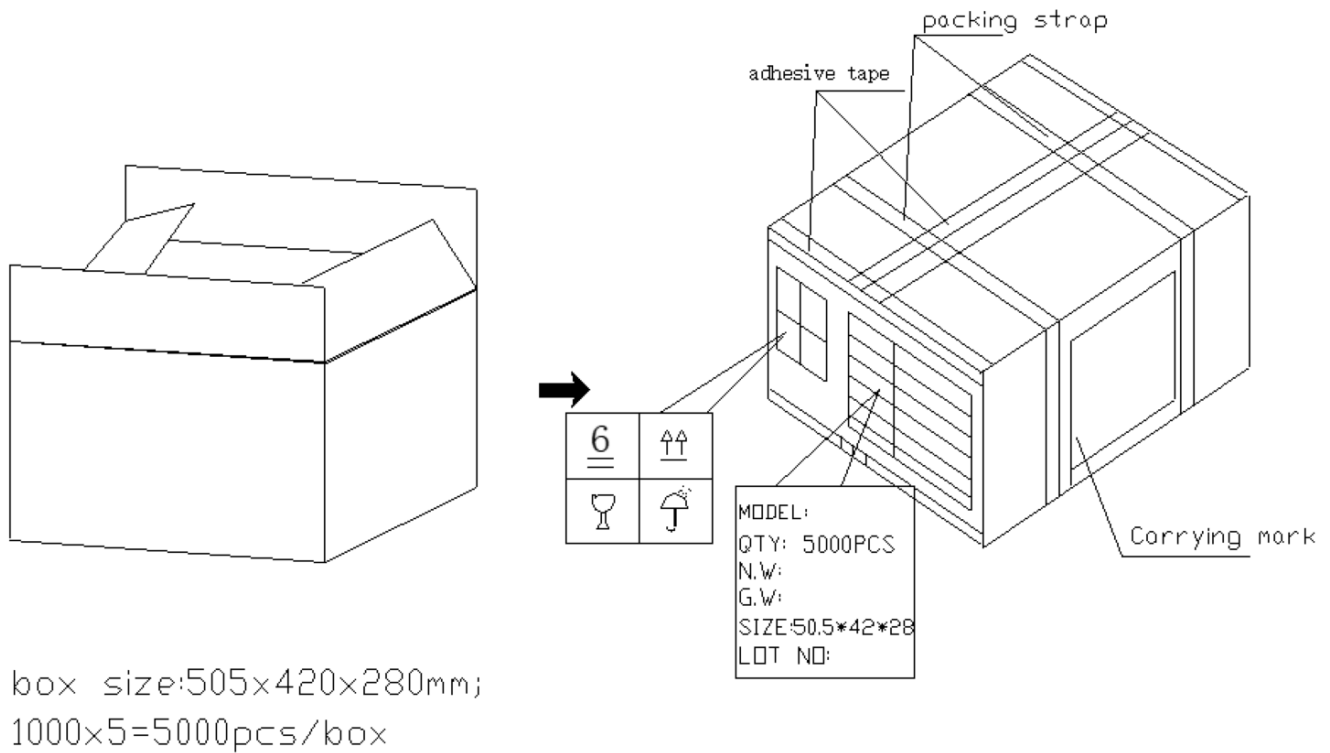
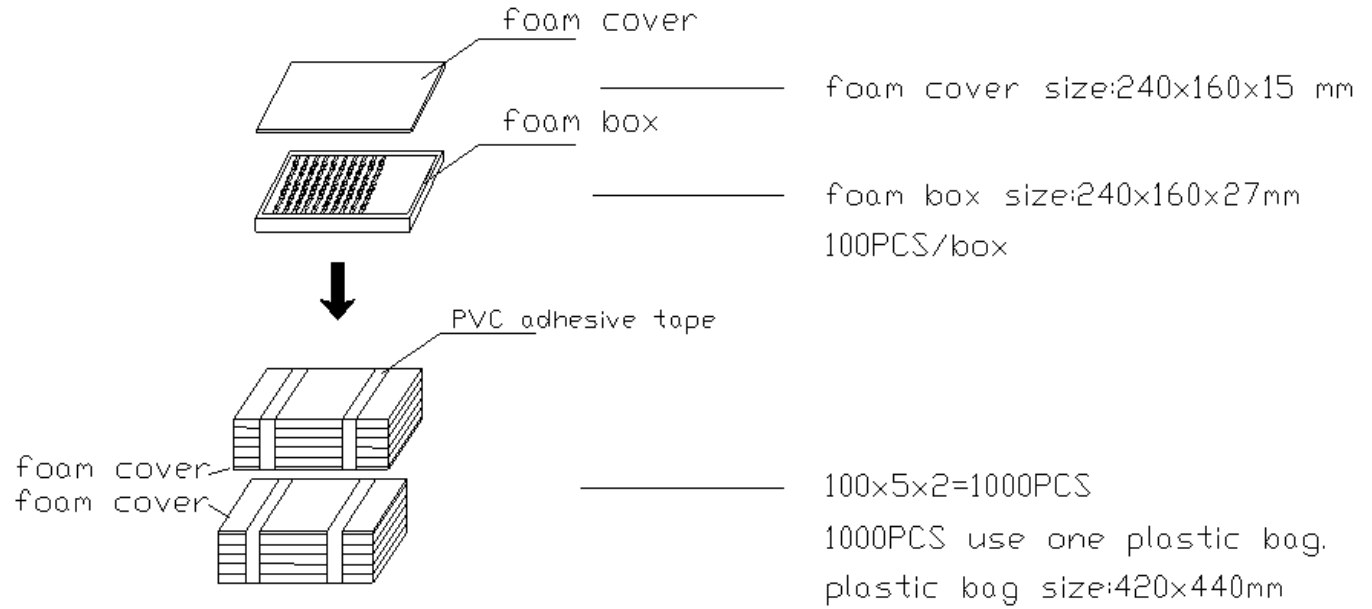
Type of Test	Test Specifications
High Temperature Test	96 hours at $+80\pm 2^{\circ}\text{C}$ , then rest at room temperature for 2 hours without applying power.
Low Temperature Test	96 hours at $-30\pm 2^{\circ}\text{C}$ , then rest at room temperature for 2 hours without applying power.
Humidity Test	96 hours at $+40\pm 2^{\circ}\text{C}$ with relative humidity at 95% then rest at room temperature for 2 hours without applying power.
Temperature Cycle Testing	<p>Complete test as shown for 5 cycles without applying power. Then expose part to room temperature for 2 hours before testing.</p>
Vibration Test	<p>Amplitude: 1.5mm Time : 1min/axis</p> <p>Complete test as shown in X,Y,Z directions for 2 hours each.</p>
Drop Test	Drop from 100cm onto the surface of a 1cm thick wooden board.

**\*After tests, part SPL shall be within  $\pm 5\text{dB}$ .**

## Dimensions



## Packaging



### Specifications Revisions

Revision	Description	Date	Approved
-	RELEASED FROM ENGINEERING	08/10/2004	-
A	REMOVED LEAD FREE NOTE ADDED ROHS NOTE	08/05/2005	BR
B	REVISED DIMENSION SIZE AND STYLE	11/28/2005	BR
C	REVISED SOUND HOLE AND TEMPERATURE	05/11/2010	BR
D	REVISED TO INVENTOR 3D DRAWING TEMPLATE	06/30/2010	BR
E	REVISED HOUSING MATERIAL	09/25/2012	BR
F	REVISED TEMPERATURE RATINGS	02/14/2020	ML
G	Update Spec Format and Company Footer, Add Detail for Reliability, Packaging, Etc.	06/25/2024	ML

Note:

1. Unless otherwise specified:
  - A. All dimensions are in millimeters.
  - B. Default tolerances are  $\pm 0.5\text{mm}$  and angles are  $\pm 3^\circ$ .
2. Specifications subject to change or withdrawal without notice.