



PUIaudio



Data Sheet	AI-1440-TWT-24V-2-R
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Features:

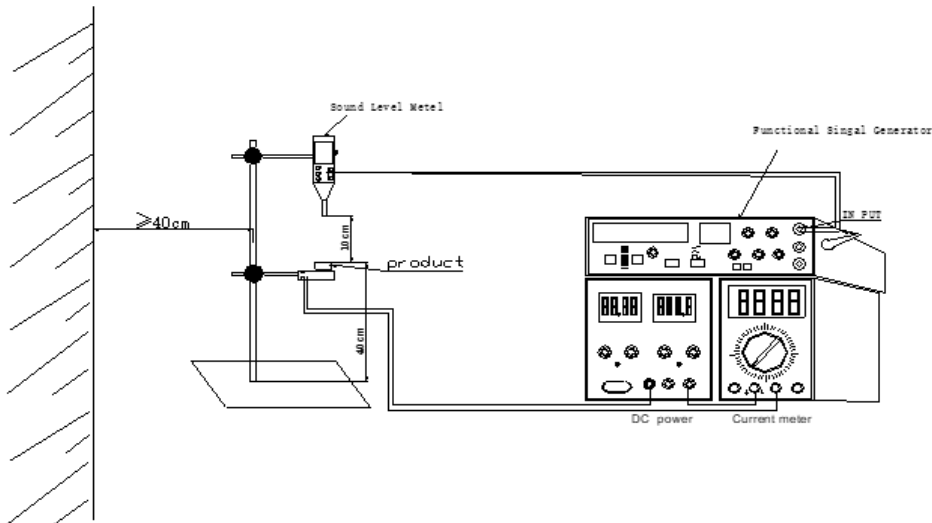
- Piezo Indicator
- 24VDC rated, 4000Hz
- Top-Firing Thru-Hole Type
- Wave Solder and Wash allowed

Specifications

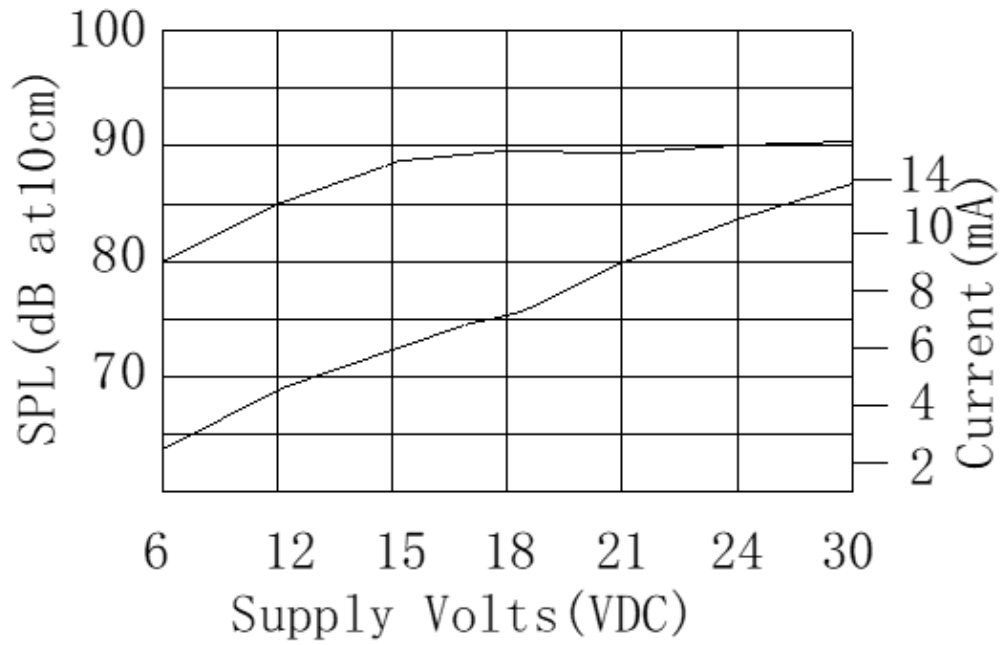
Parameters	Values	Units
Rated Voltage	24	VDC
Operating Voltage Range	6 ~ 30	VDC
Current Draw at Rated Voltage	18	mA
Minimum SPL @ 10cm	87	dBA
Resonant Frequency	4,000 ± 500	Hz
Tone or Pulse Rate	Continuous	-
Housing Material	Noryl	-
Terminal Material	Sn Plated Copper(DSn)	-
Weight	1	Grams
Acceptable Soldering Methods	Hand Solder, Wave Solder	-
Environmental Compliances	RoHS/REACH	7c-1
Storage Temperature	-40 ~ +85	°C
Operating Temperature	-30 ~ +70	°C

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

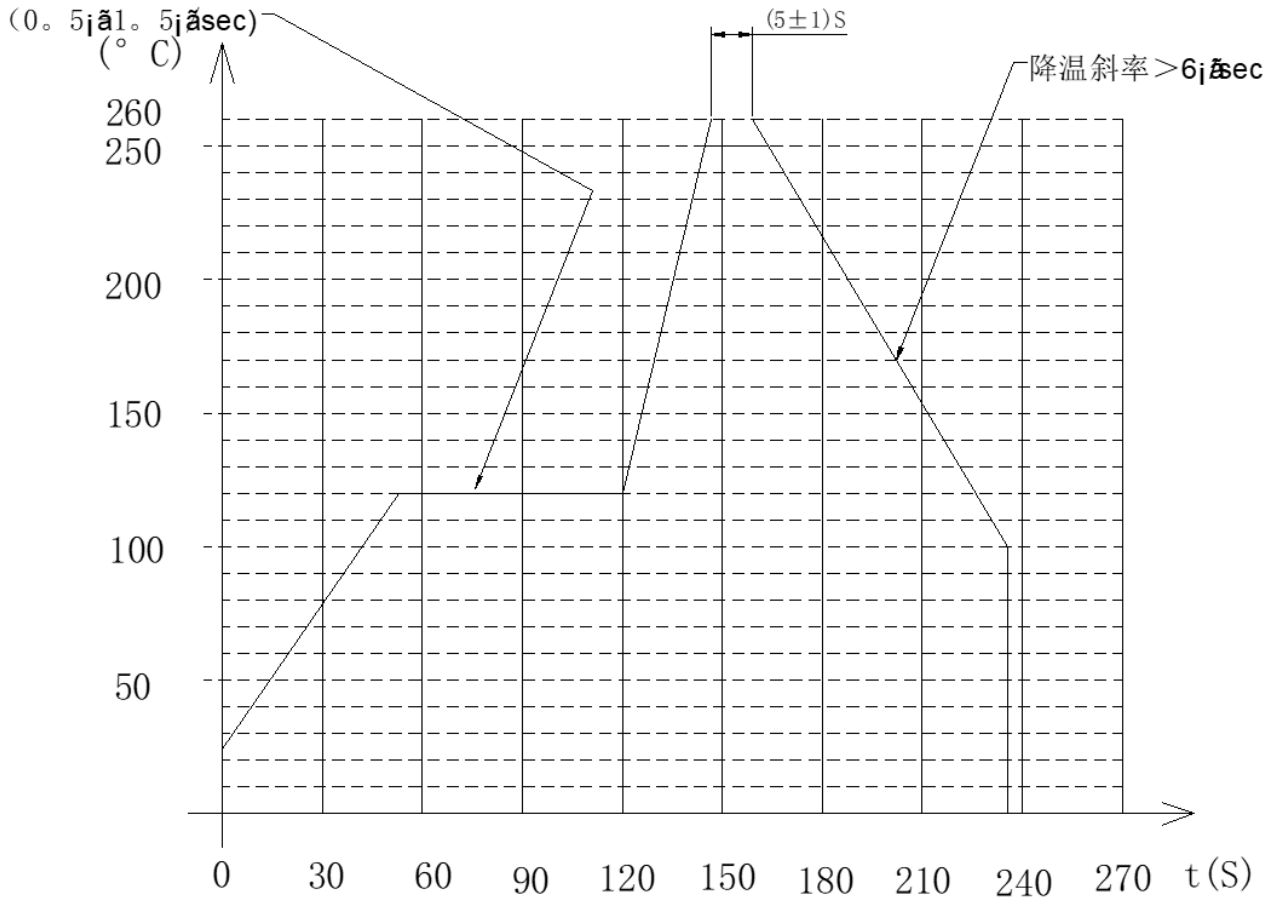
Standard Test Fixture (Distance: 10cm, 24VDC)



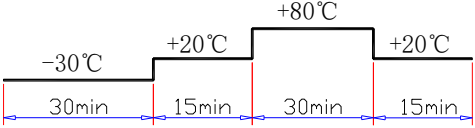
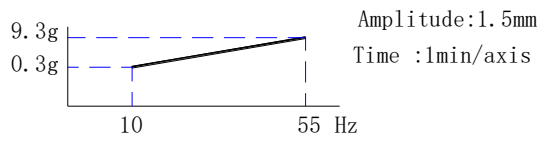
Typical SPL vs Input Voltage



Recommended Wave Solder Profile

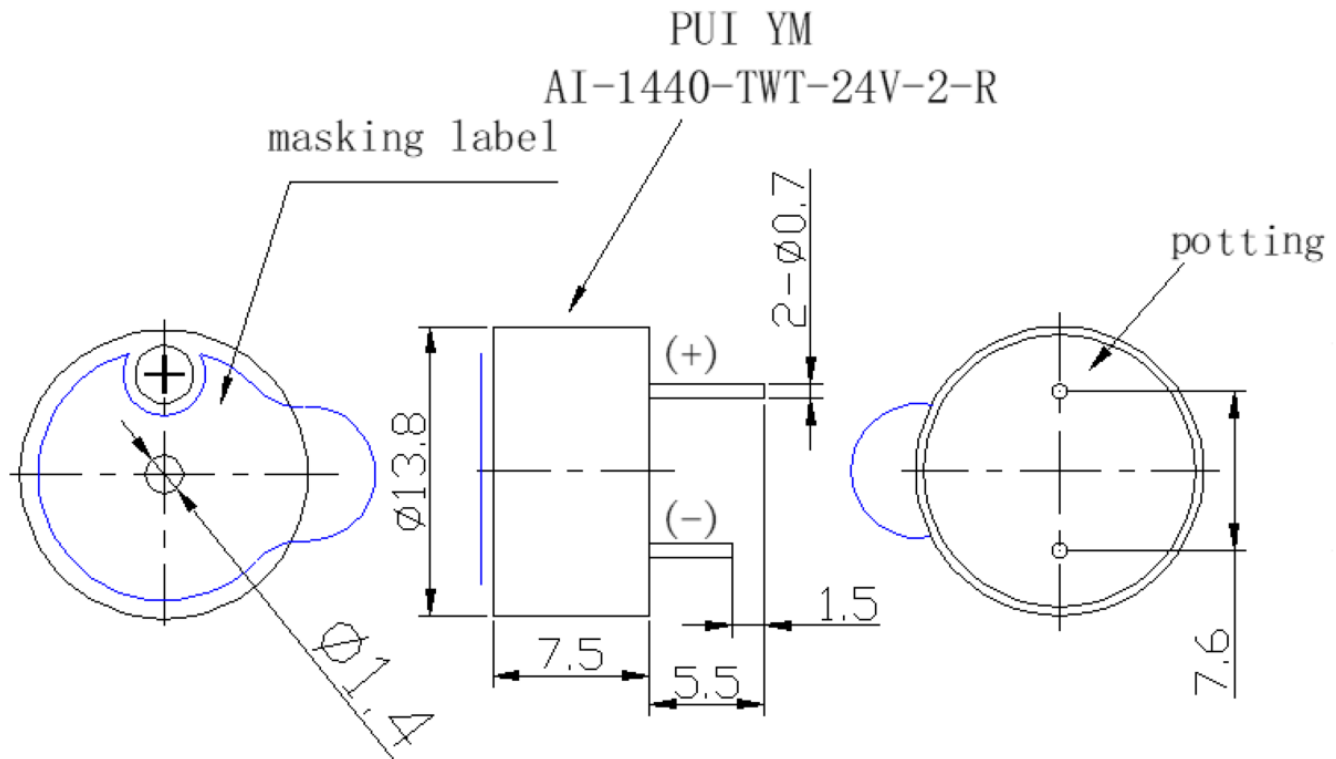


Reliability Testing

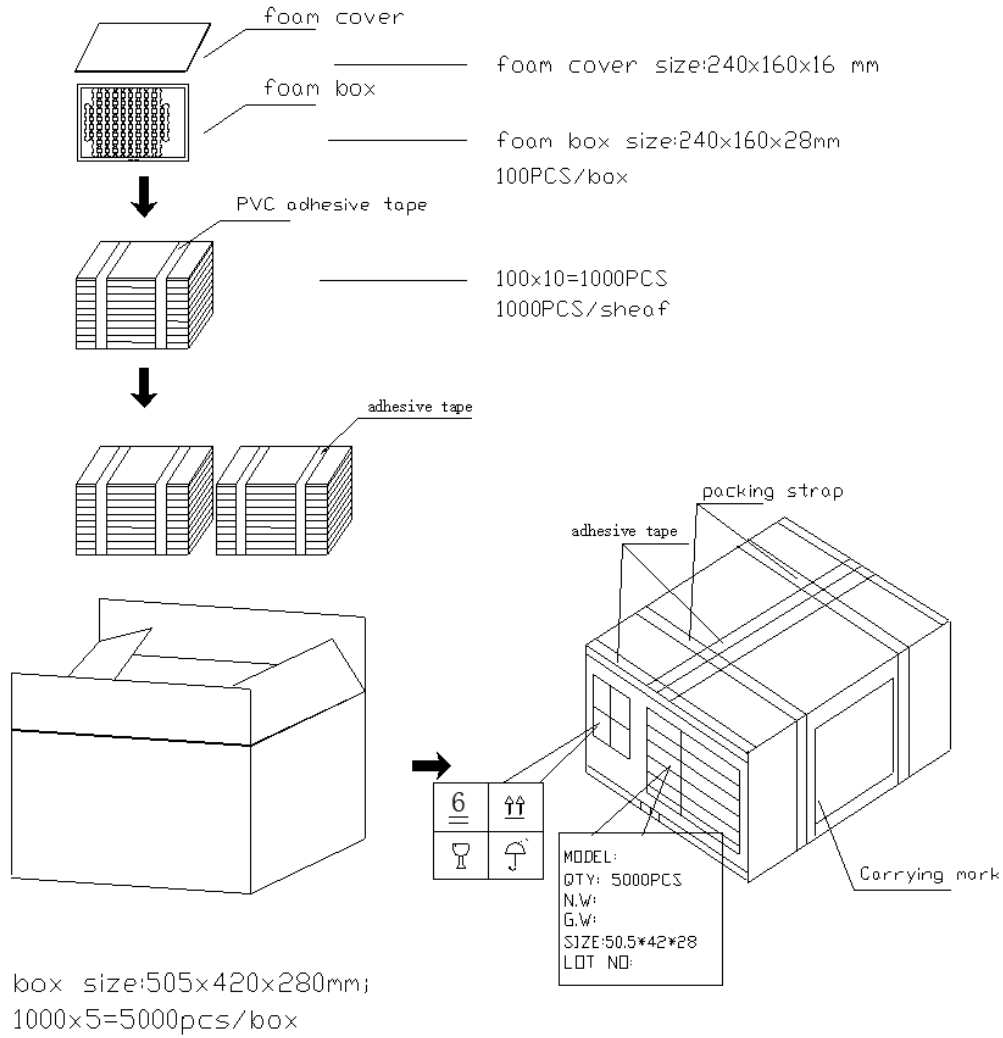
Type of Test	Test Specifications
High Temperature Test	Storage in $+85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ test box for 96 hours, then expose to the room temperature for 2 hours without applying power.
Low Temperature Test	Storage in $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ test box for 96 hours, then expose to the room temperature for 2 hours without applying power.
Humidity Test	Storage in $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 90-95%RH test box for 96 hours, then expose to the room temperature for 2 hours without applying power.
Temperature Cycle Testing	 <p>Make this test for 5 cycles without applying power, then expose to the room temperature for 2 hours.</p>
Vibration Test	 <p>Complete above test in each X, Y, Z for 2 hours each (total 6hrs).</p>
Drop Test	Drop unit from height of 70cm to the surface of 10mm thick board, three directions(X,Y,Z).

Part shall pass tests within SPL of $\pm 5\text{dB}$.

Dimensions



Packaging



Specifications Revisions

Revision	Description	Date	Approved
-	RELEASED FROM ENGINEERING	10/18/2006	-
A	REVISED TO INVENTOR 3D TEMPLATE	11/16/2007	BR
B	ADDED NOTE 4	04/09/2012	BR
C	REVISED SOUND HOLE DIAMETER AND TEMPERATURE SPECIFICATIONS	02/21/2020	MV
D	Update Spec Format, Add details for Reliability, Packaging, etc.	06/26/2024	ML

Note:

- Unless otherwise specified:
 - All dimensions are in millimeters.
 - Default tolerances are $\pm 0.5\text{mm}$ and angles are $\pm 3^\circ$.
- Specifications subject to change or withdrawal without notice.
- This part is ROHS 2015/863/EU compliant. (Exemption 7c-1 for piezo type).
- Internal Wire is 0.15mm Enameled Coated with A660 Adhesive Over Solder Joints