



PUI audio



Data Sheet	AI-1441-TWT-12V-R
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Features:

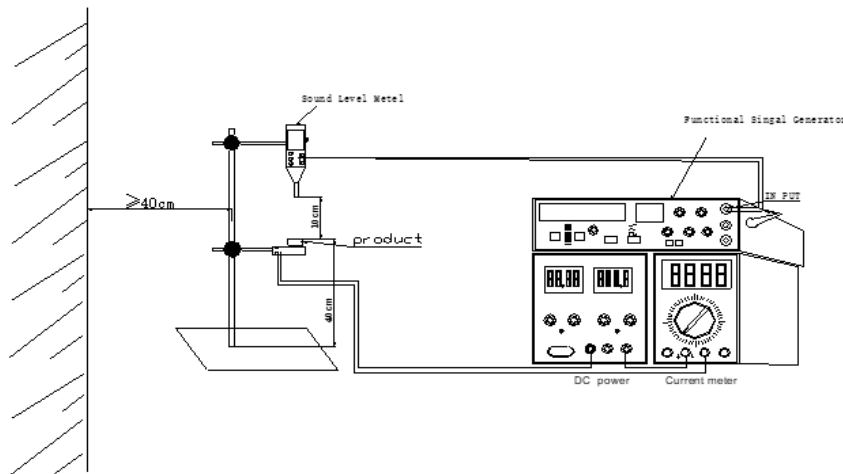
- Piezo Indicator
- 24VDC rated, 4000Hz
- Thru-Hole Type
- Wave Solder and Washing NOT Allowed

Specifications

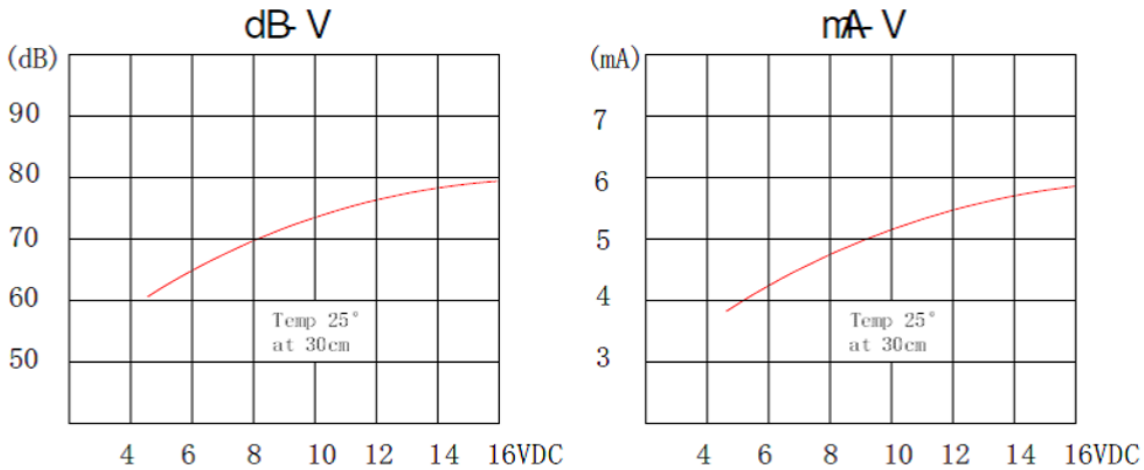
Parameters	Values	Units
Rated Voltage	12	VDC
Operating Voltage Range	3 ~ 16	VDC
Current Draw at Rated Voltage	7	mA
Minimum SPL @ 10cm	80	
Minimum SPL @ 30cm	70	dBa
Resonant Frequency	4,100 ± 500	Hz
Tone or Pulse Rate	Continuous	-
Housing Material	PPO	-
Terminal Material	Au Plated Brass	-
Weight	1	Grams
Acceptable Soldering Methods	Hand Solder	Iron Temp 350C, Solder time <3 seconds
Environmental Compliances	RoHS/REACH	Ex. 7c-1
Storage Temperature	-30 ~ +80	°C
Operating Temperature	-20 ~ +70	°C

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

Standard Test Fixture (Distance=10cm, Power=12VDC)



Typical SPL vs Input Voltage

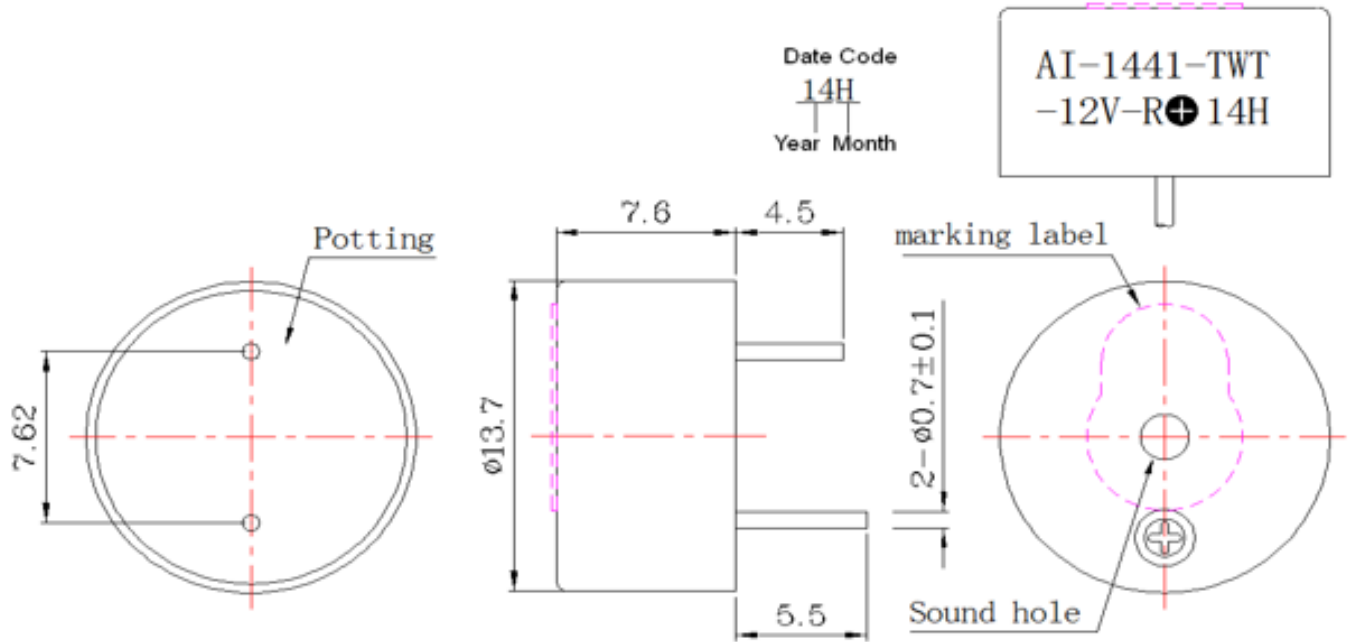


Reliability Testing

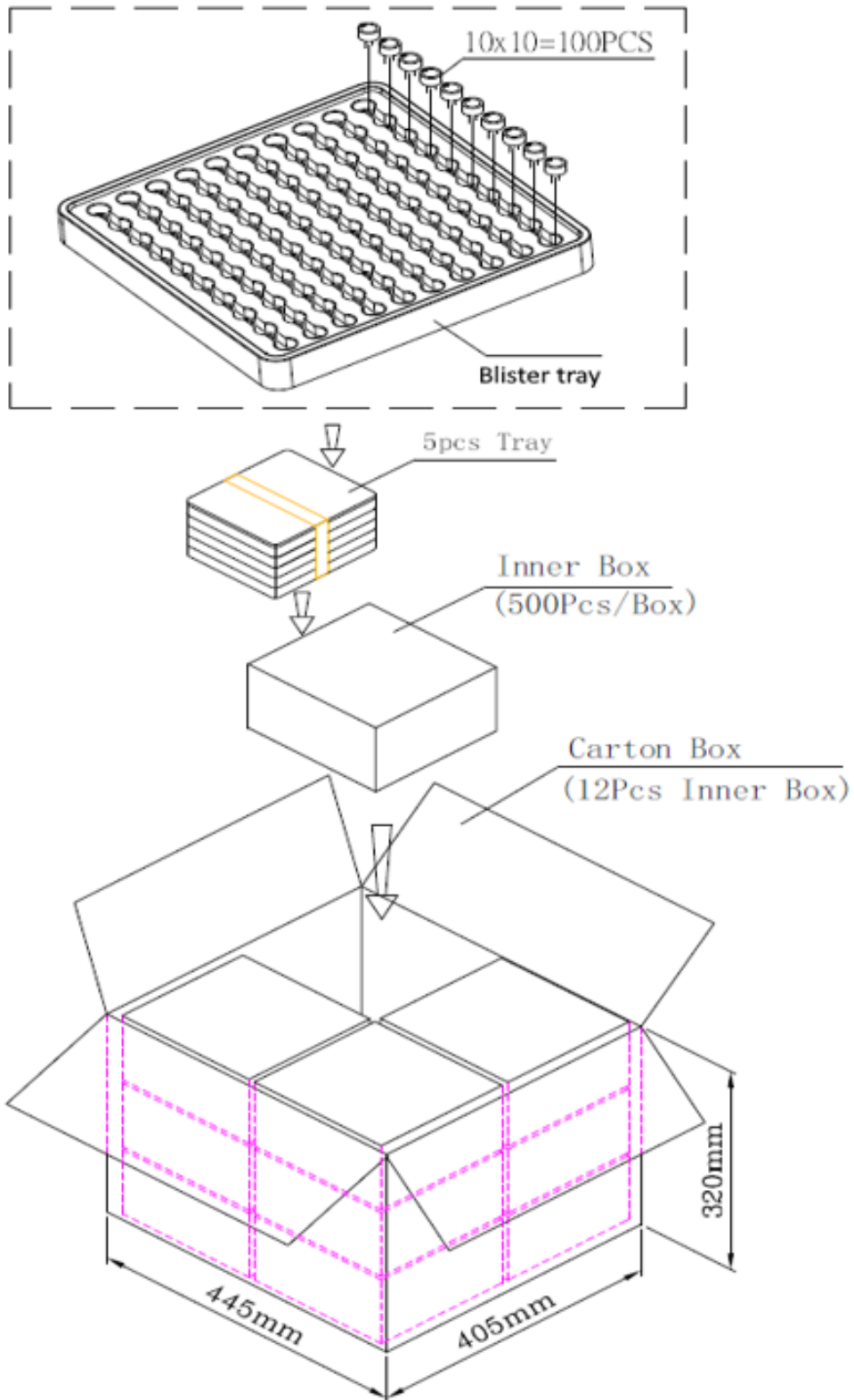
Type of Test	Test Specifications
High Temperature Test	96 hours at 80°C. Let stand in room condition for 2 hours before testing.
Low Temperature Test	96 hours at -30°C. Let stand in room condition for 2 hours before testing.
Humidity Test	96 hours at 40°C with relative humidity at 90-95%. Let stand in room condition for 2 hours before testing.
Temperature Cycle Testing	<p>The diagram shows a temperature cycle profile over a 3-hour period. It starts at -20°C for 0.5 hours, ramps up to +25°C in 0.5 hours, holds at +25°C for 0.25 hours, ramps up to +70°C in 0.5 hours, holds at +70°C for 0.5 hours, ramps down to +25°C in 0.5 hours, holds at +25°C for 0.25 hours, and finally ramps down to -20°C in 0.5 hours. The total cycle time is 3 hours.</p> <p>Subject part to 5 cycles of test as shown above.</p>
Vibration Test	Apply vibration amplitude of 1.5mm with 10-55Hz band vibration frequency to each XYZ directions for 2 hours.
Drop Test	Drop onto wooden board 4cm thick in any direction for 6 times, at height of 75cm.

Part shall test within ± 10 dB SPL.

Dimensions



Packaging



Tray	184mmx180mmx23mm	1x100PCS= 100PCS
Inner Box	200mmx190mmx100mm	5x100PCS= 500PCS
Carton Box	440mmx400mmx310mm	12x500PCS=6,000PCS

Specifications Revisions

Revision	Description	Date	Approved
-	RELEASED FROM ENGINEERING	06/27/2014	-
A	Update Spec Format, Add Details for Reliability, Packaging, Etc.	08/05/2024	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.