



PUI audio



Data Sheet

AI-3018-TWT-R

Features:

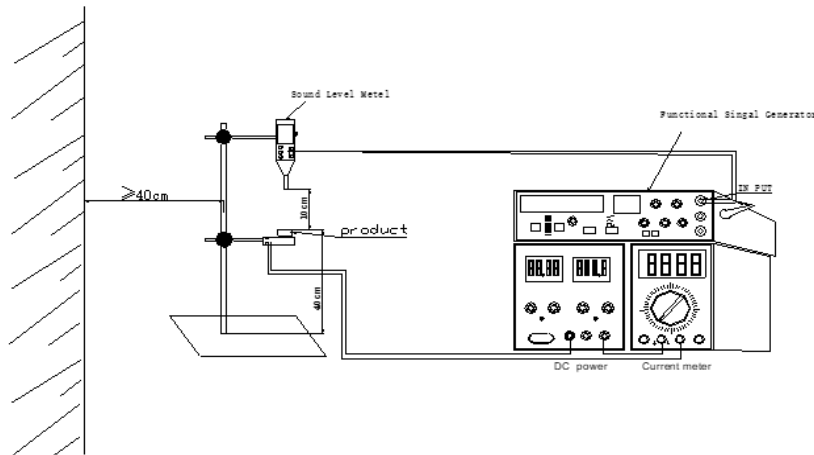
- Piezo Indicator
- 12VDC rated, 1800Hz
- Top-Firing Thru-Hole Type
- Washing Allowed, Wave Solder NOT Allowed

Specifications

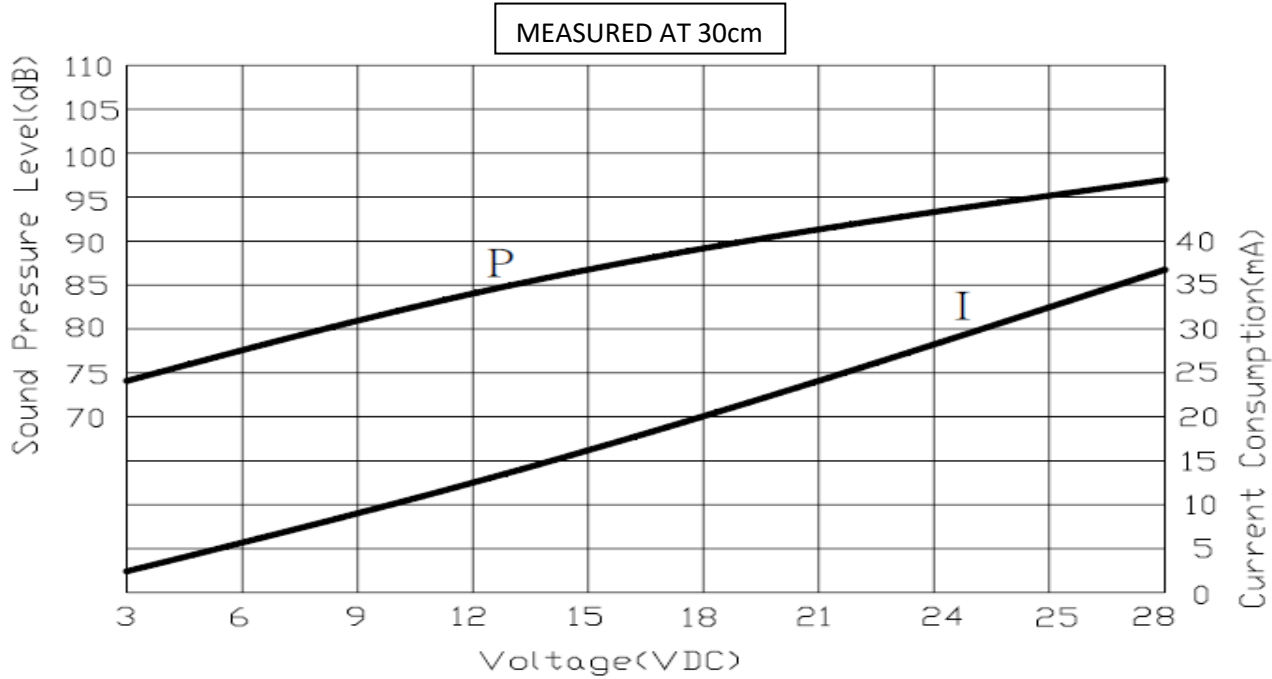
Parameters	Values	Units
Rated Voltage	12	VDC
Operating Voltage Range	3 ~ 28	VDC
Current Draw at Rated Voltage	18	mA
Minimum SPL @ 10cm	87	dBA
Minimum SPL @ 30cm	77	
Resonant Frequency	1,800 ± 500	Hz
Tone or Pulse Rate	Continuous	-
Housing Material	ABS	-
Terminal Material	Sn Plated Phosphor Bronze	-
Weight	5.8	Grams
Acceptable Soldering Methods	Hand Solder	See Notes
Environmental Compliances	RoHS/REACH	Ex. 7c-1
Storage Temperature	-40 ~ +80	°C
Operating Temperature	-30 ~ +80	°C

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

Standard Test Fixture (Distance: 10cm, 12VDC)



Typical SPL vs Input Voltage

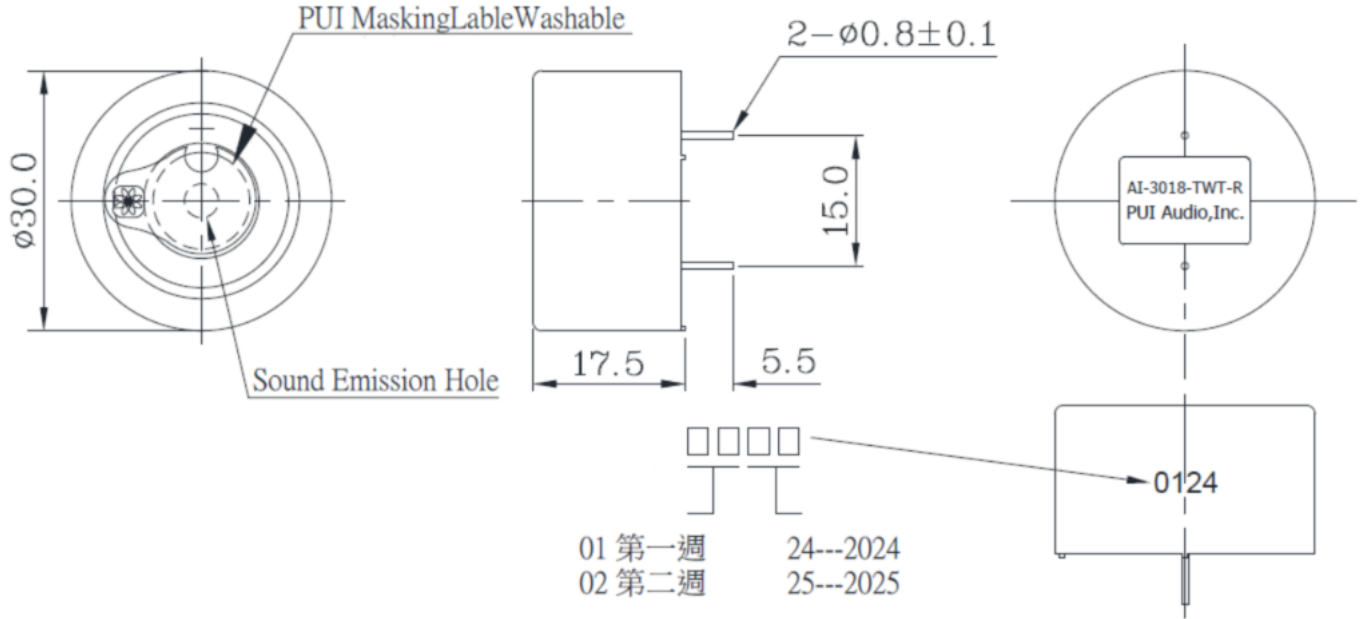


Reliability Testing

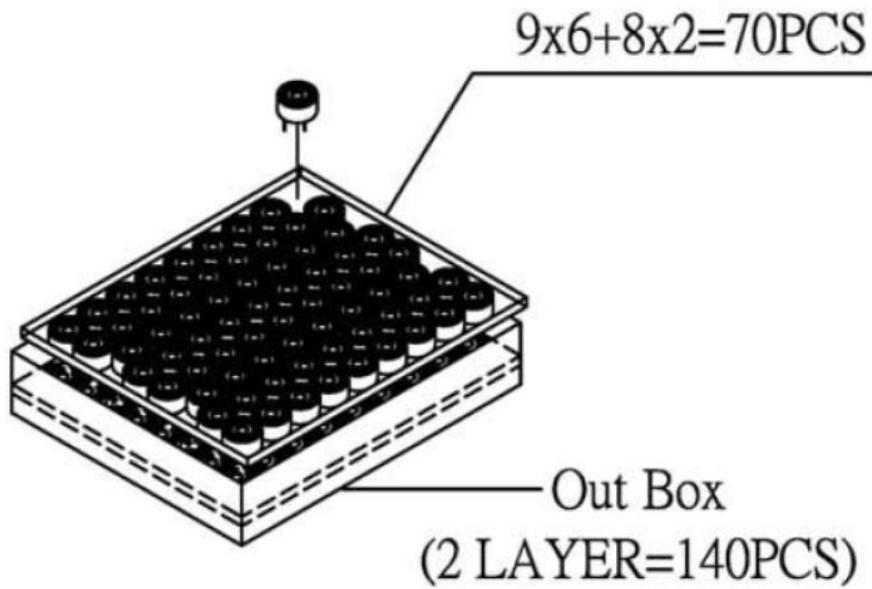
Type of Test	Test Specifications
High Temperature Test	Test chamber for 240 hours at +80°C, then rested at room temperature for 4 hours.
Low Temperature Test	Test chamber for 240 hours at -40°C, then rested at room temperature for 4 hours.
Humidity Test	Test chamber for 240 hours at +40°C with relative humidity at 90±5%, then rested at room temperature for 4 hours.
Temperature Cycle Testing	<p>Test repeated 5 times, then rest at room temperature for 4 hours.</p>
Vibration Test	1.5mm amplitude vibration with 10~55Hz band of vibration frequency for 2 hours. Repeat test in X, Y, Z directions (total 6 hours).
Drop Test	Free drop a unit from the height 75cm to the surface of 40mm thick board, three times. Repeat test in X, Y, Z directions (total 9 times).
Load Test	Apply rated voltage for 48 hours continuously at +70°C. Apply a duty cycle of 1 minute on, 1 minute off 5000 times minimum, at rated voltage and room temperature (+25±3°C).

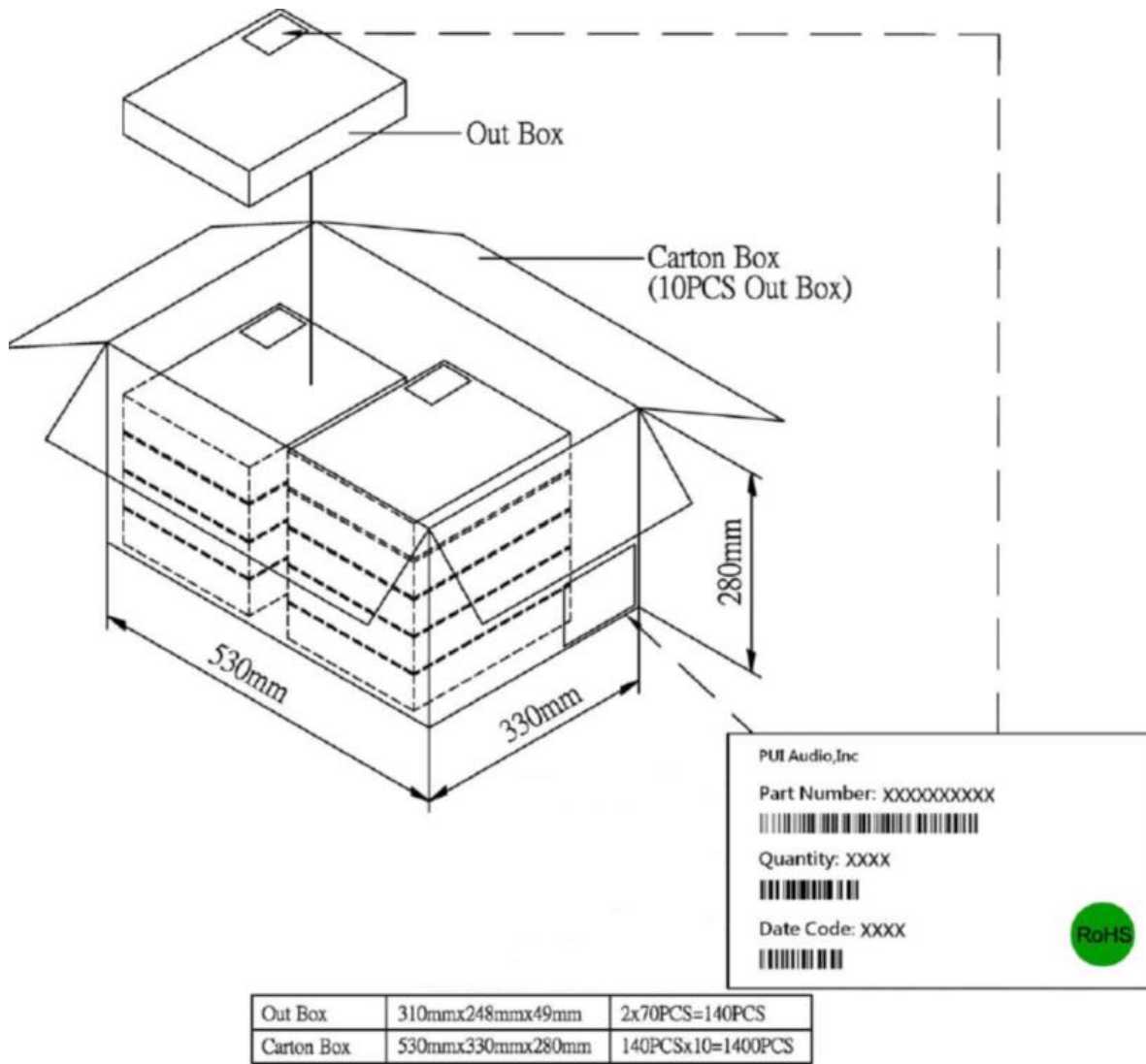
After tests, allow part to rest for 4hrs at 25C then test. SPL within ± 10dB, other values ±10%.

Dimensions



Packaging





Specifications Revisions

Revision	Description	Date	Approved
-	RELEASED FROM ENGINEERING	09/23/2005	-
A	REVISED MAX CURRENT	05/06/2009	BR
B	ADDED NOTE NUMBER 4	11/09/2009	BR
C	REVISED TO INVENTOR 3D DRAWING TEMPLATE	02/08/2010	BR
D	ADDED DATE CODE	09/07/2016	BR
E	REVISED WEIGHT	02/24/2020	MV
F	Update Drawing Image and Packaging Detail	07/23/2024	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.
3. This part is RoHS/REACH compliant.
4. Hand solder only; iron temp 340C-400C and solder time 3-10 seconds or less. Wave soldering not allowed. Minimum insulation resistance between feedback circuit and ground is 20M Ohms.