



PUI audio



Data Sheet

AT-4228-TWT-F-R

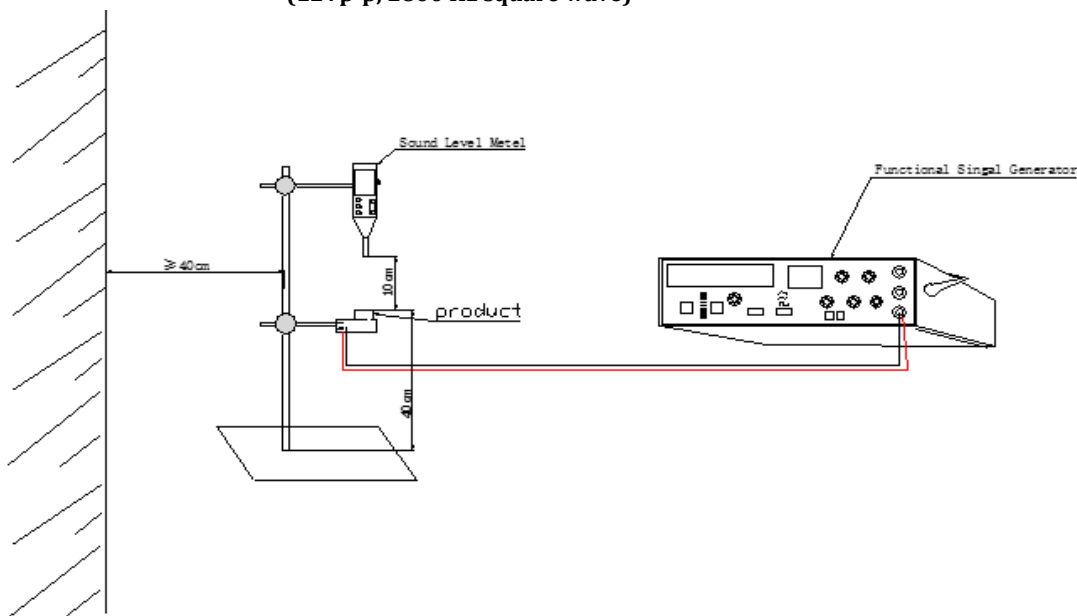
Features:

- Piezo Transducer
- 12Vp-p rated, 2800Hz
- Wave Solder NOT Allowed, Washing Allowed

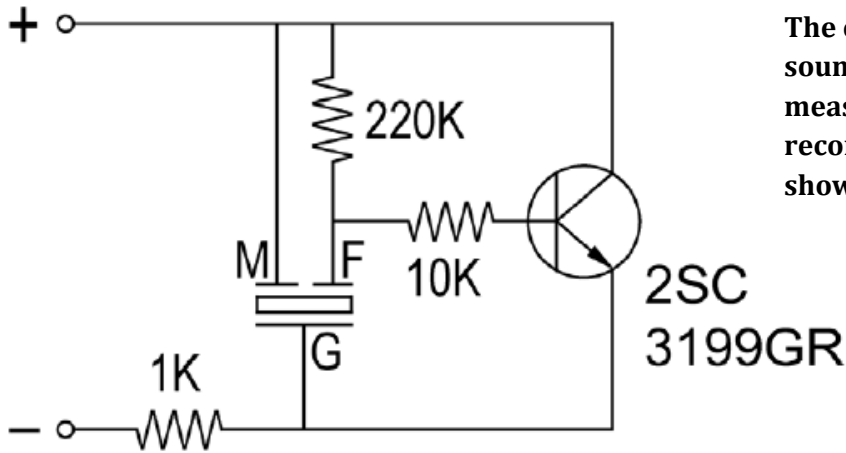
Specifications

Parameters	Values	Units
Rated Voltage	12	Vp-p
Operating Voltage Range	3 ~ 28	Vp-p
Current Draw at Rated Voltage	7	mA
Capacitance at 120Hz	25,000 ± 30%	pF
Minimum SPL @ 10cm	92	dBA
Minimum SPL @ 30cm	82	dBA
Resonant Frequency	2800 ± 500	Hz
Housing Material	ABS	-
Terminal Material	Au Plated Phosphor Bronze	-
Weight	11.7	Grams
Acceptable Soldering Methods	Hand Solder	-
Environmental Compliances	ROHS/REACH	Exemption 7c-1
Storage Temperature	-40 ~ +95	°C
Operating Temperature	-30 ~ +85	°C

Measurement Method (12Vp-p, 2800 Hz square wave)

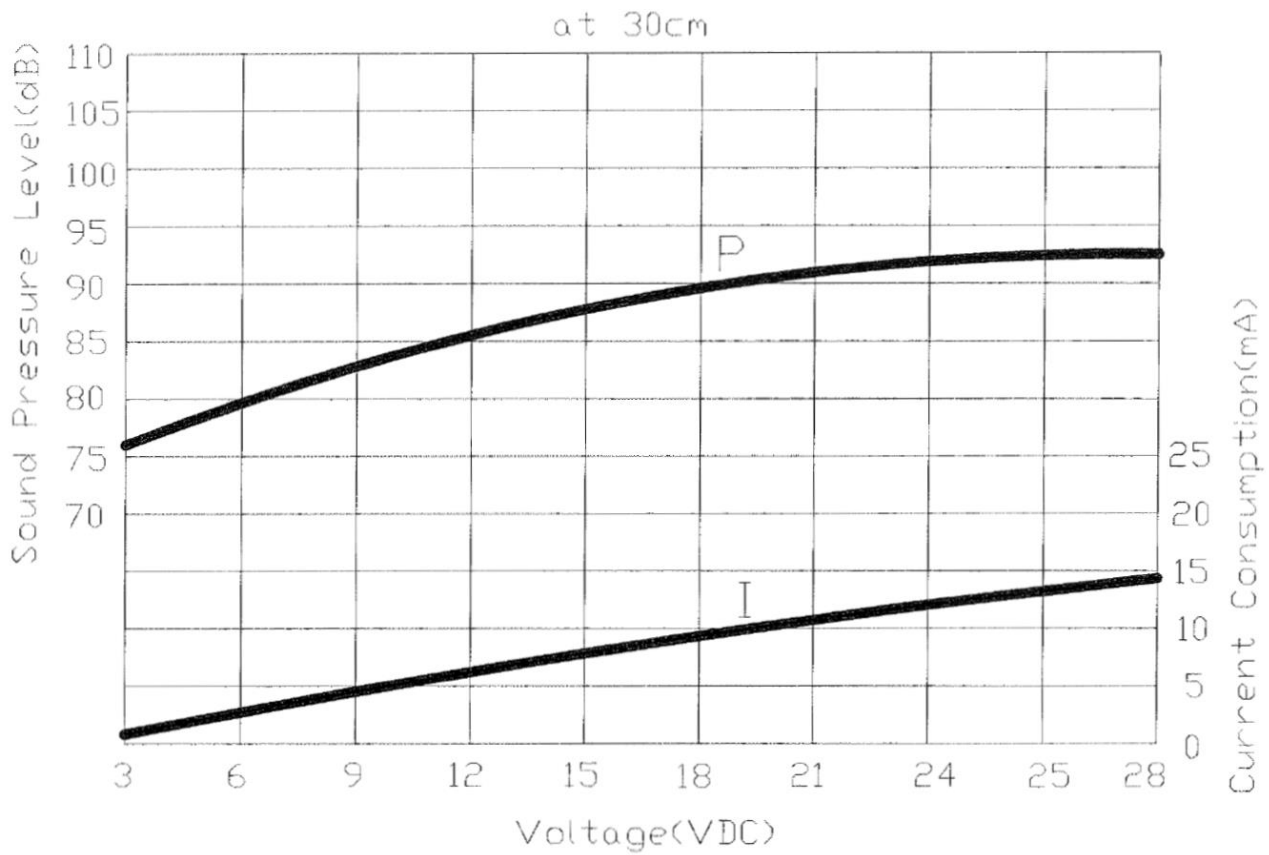


Basic Drive Circuit (Testing Only)

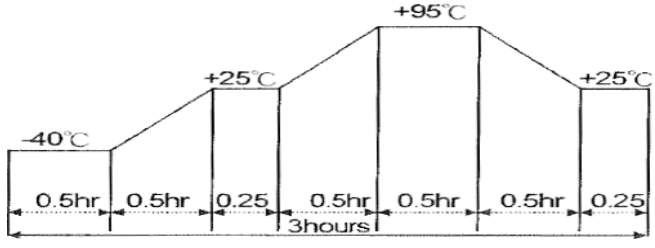


The current consumption and the sound pressure level are measured by using the recommended driving circuit shown.

Typical Frequency Response (Shown at 30cm)

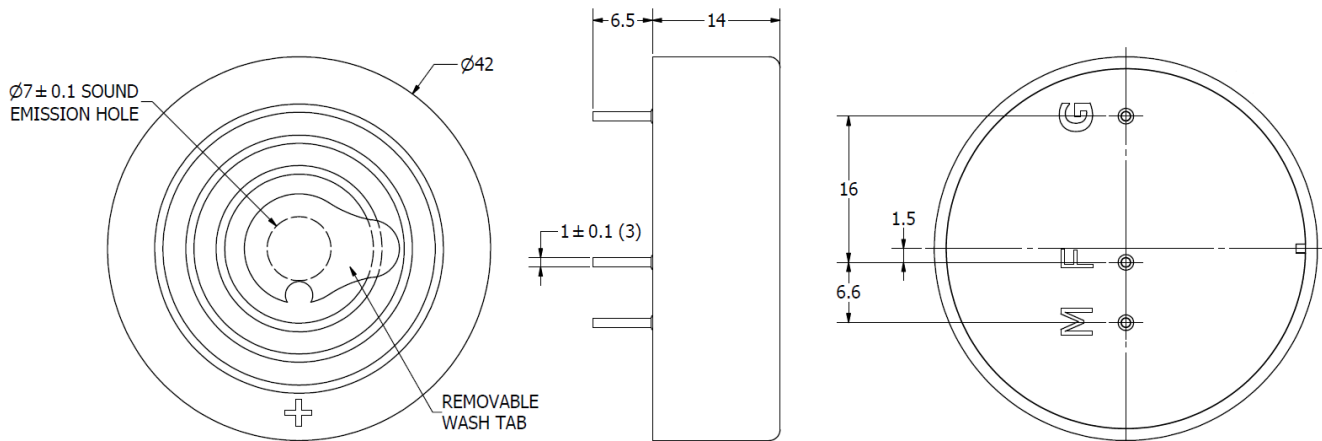


Reliability Testing

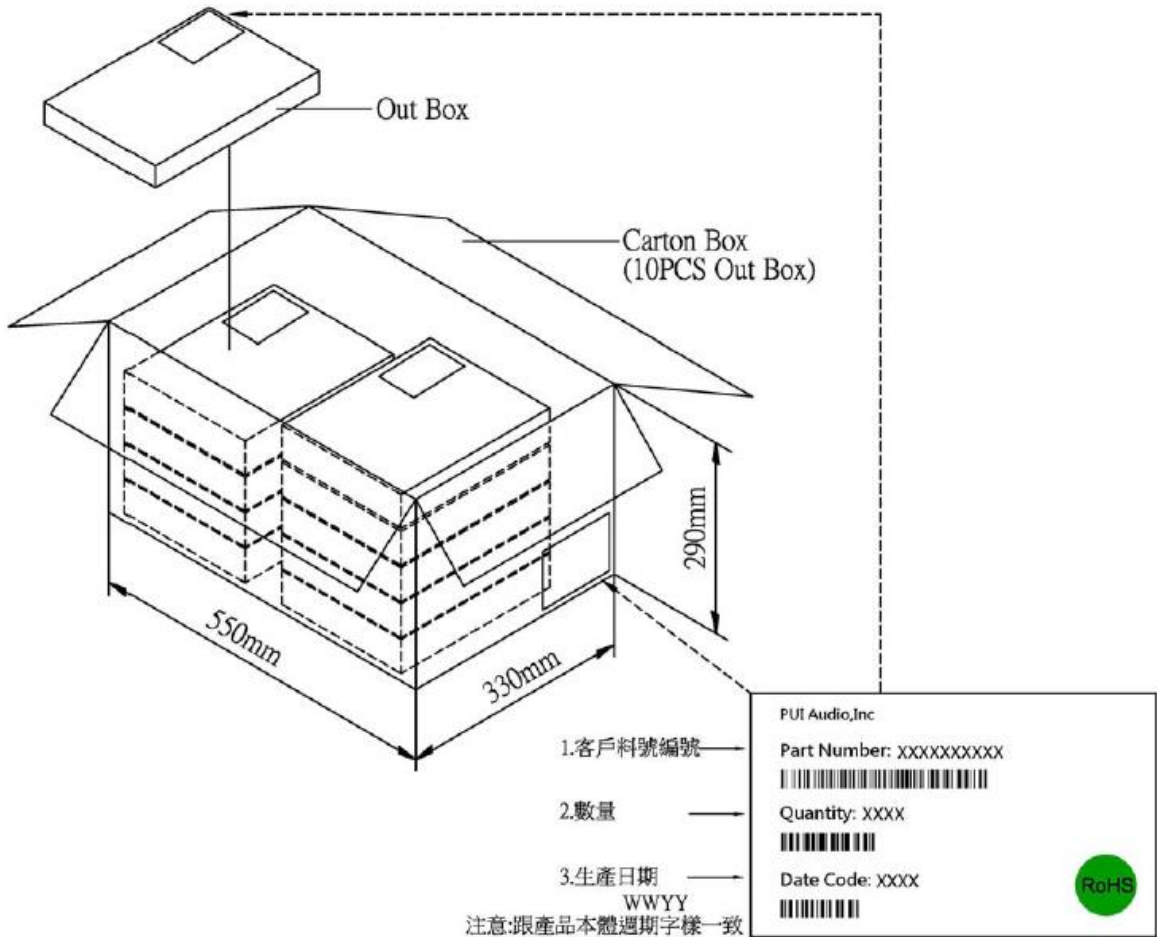
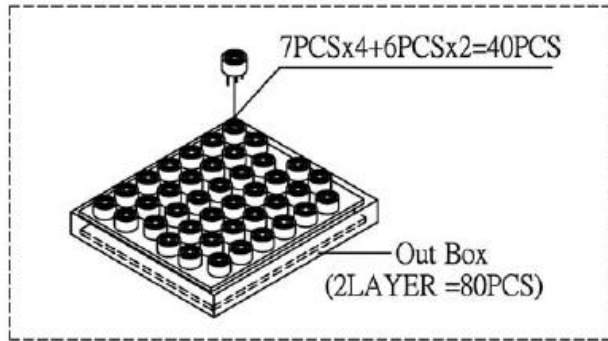
Type of Test	Test Specifications
High Temperature Test	Placed in chamber at +95°C for 240 hours, then rested at +25°C for 4 hours.
Low Temperature Test	Placed in chamber at -40°C for 240 hours, then rested at +25°C for 4 hours.
Humidity Test	Placed in chamber at +40°C & 90±5% RH for 240 hours, then rested at +25°C for 4 hours
Temperature Cycle Testing	 <p>Part subjected to 5 cycles of test, then rested at +25°C for 4 hours.</p>
Vibration Test	Vibration applied with amplitude of 1.5mm and 10 ~ 55Hz band of vibration frequency to each direction (X, Y, Z) for 2 hours each (6 hours total).
Drop Test	Free drop a unit from the height 75cm to the surface of 40mm thick wooden board, 3 times in each direction (X, Y, Z) (9 times total).
Continuous Life Test	48 hours continuous operation at +70°C with rated voltage applied.
Intermittent Life Test	Duty cycle of 1 minute on, 1 minute off, minimum of 5000 times at +25±2°C with rated voltage applied.

Parts pass after tests, values shall be within ±10% of original ones. SPL shall be within ±10dB.

Dimensions



Packaging



Out Box	310mmx248mmx49mm	2x40PCS=80PCS
Carton Box	550mmx330mmx290mm	80PCSx10=800PCS

Specifications Revisions

Revision	Description	Date	Approved
-	RELEASED FROM ENGINEERING	09/12/2005	-
A	REVISED TO INVENTOR 3D DRAWING TEMPLATE	09/05/2008	BR
B	ADDED DRIVE CIRCUIT	02/09/2012	CW
C	Update Spec Format, Add Details for Reliability, Packaging, Etc.	11/12/2024	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.