



PUIaudio



Data Sheet

AT-1820-TWT-1V-R

Features:

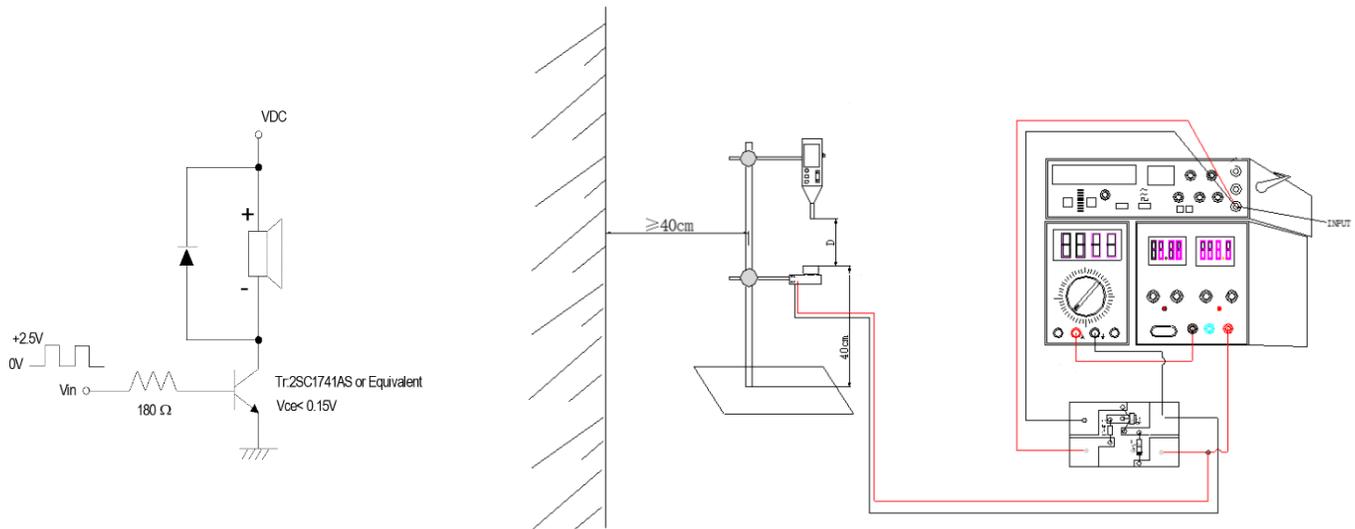
- 1.5V0-pk, 2048Hz Magnetic Transducer
- Pin Type
- Wave Solder and Washing Allowed

Specifications

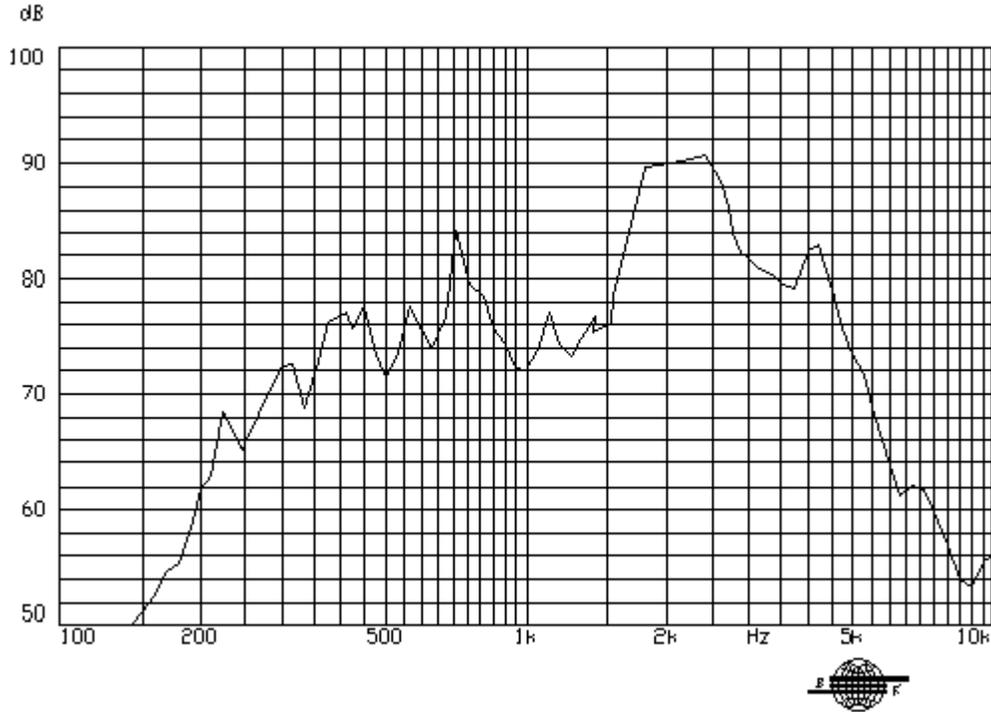
Parameters	Values	Units
Rated Voltage	1.5	V0-p
Operating Voltage Range	1 ~ 2	V0-p
Current Draw at Rated Voltage	40(Max.)	mA
Coil Resistance	16 ± 4	Ohms
Minimum SPL @ 10cm	85	dBA
Resonant Frequency	2048 ± 500	Hz
Housing Material	NORYL	-
Terminal Material	Sn Plated Copper	-
Weight	7	Grams
Acceptable Soldering Methods	Hand Solder, Wave Solder	-
Environmental Compliances	RoHS/REACH	-
Storage Temperature	-30 ~ +85	°C
Operating Temperature	-20 ~ +80	°C

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

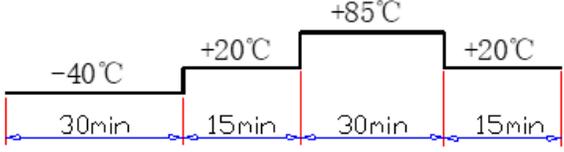
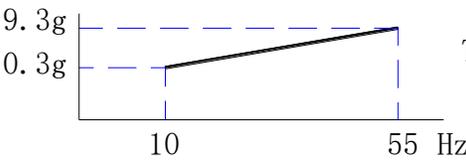
Standard Test Fixture (Distance: 10cm, 1.5 V0-p, 2250Hz square wave)



Typical Frequency Response (1.5Vpk, 2250Hz square wave, 10cm)

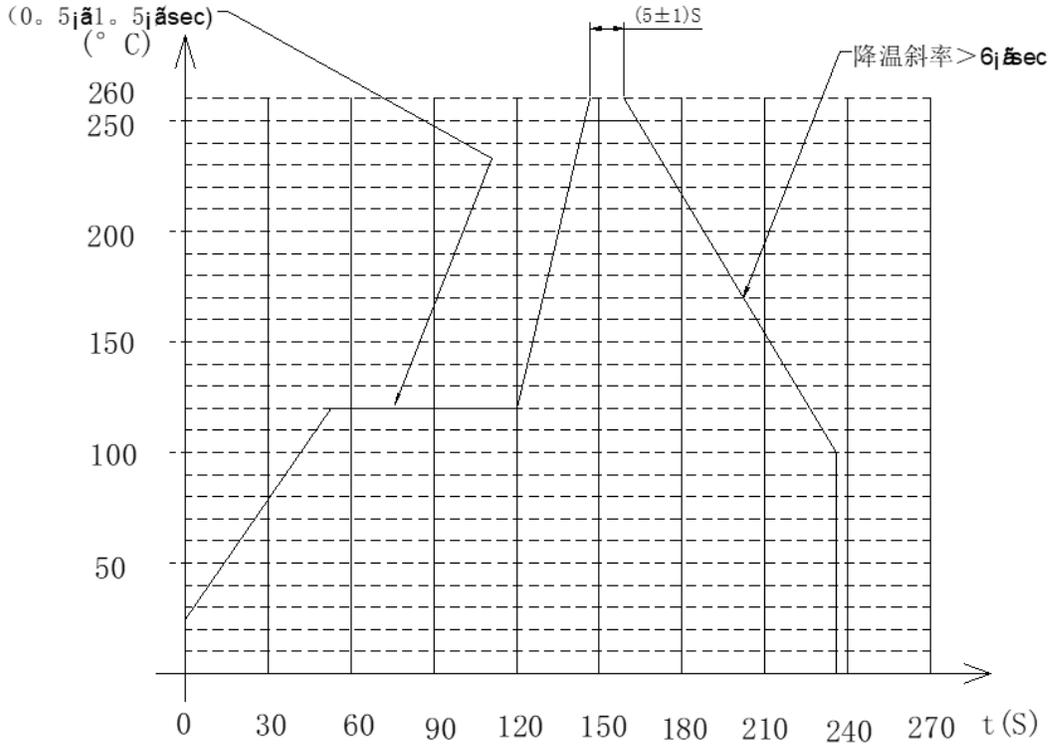


Reliability Testing

Type of Test	Test Specifications
High Temperature Test	96 hours at +85°C±2°C then rest at room temperature for 2 hours without applying power
Low Temperature Test	96 hours at -30°C±2°C then rest at room temperature for 2 hours without applying power
Humidity Test	96 hours at +40°C±2°C with relative humidity at 90-96% then rest at room temperature for 2 hours without applying power
Temperature Cycle Testing	 <p>Test for 5 cycles without applying power, then expose to room temperature for 2 hours</p>
Vibration Test	 <p>Amplitude: 1.5mm Time : 1min/axis</p> <p>In X,Y,Z directions for 2 hours each (6 hours total)</p>
Drop Test	Drop a piece from a height of 1m to the surface of a 10mm thick board, drop the piece on each X, Y, Z axis

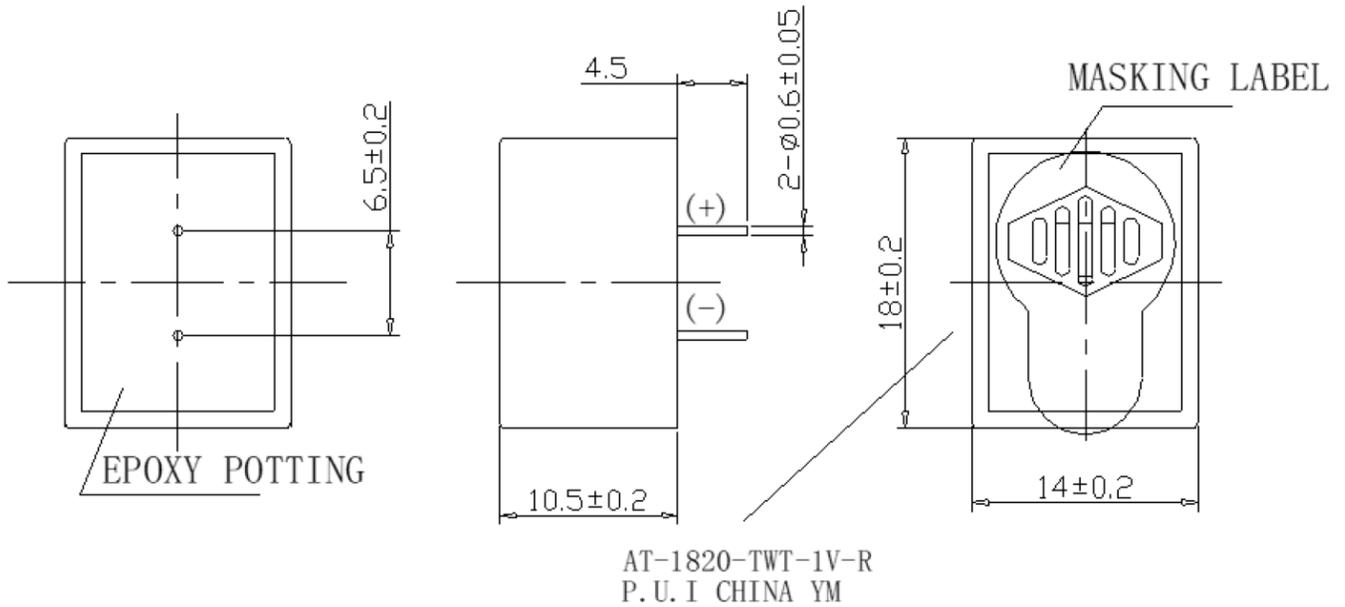
After these tests, the piece should test within ± 5dB of the original SPL

Recommended Wave Solder Profile

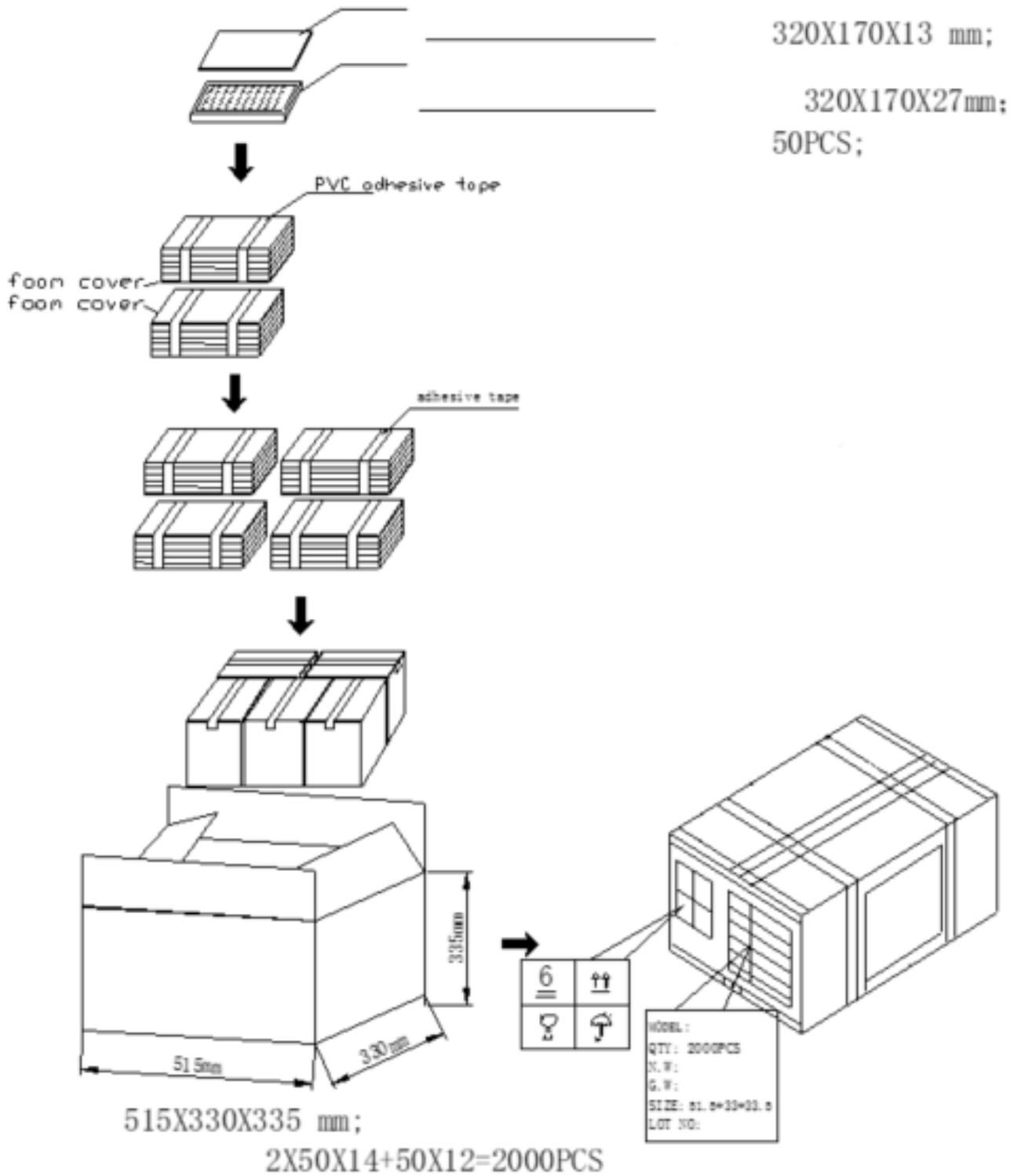


***Manual Solder Temp 350C, Solder Time < 3 Seconds**

Dimensions



Packaging



Specification Revisions

Revision	Description	Date	Approved
-	RELEASED FROM ENGINEERING	03/21/2006	-
A	REVISED HEIGHT DIMENSION	05/11/2010	BR
B	REVISED TO INVENTOR 3D DRAWING TEMPLATE	05/12/2010	BR
C	REVISED RESONANT FREQUENCY	02/19/2020	ML
D	Update Spec Format and Drawing Image, Add Details for Reliability, Packaging, etc. Revised Resonant Frequency to 2048Hz	09/18/2024	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.