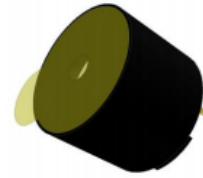




PUI audio



Data Sheet

AT-1220-TWT-5V-R

Features:

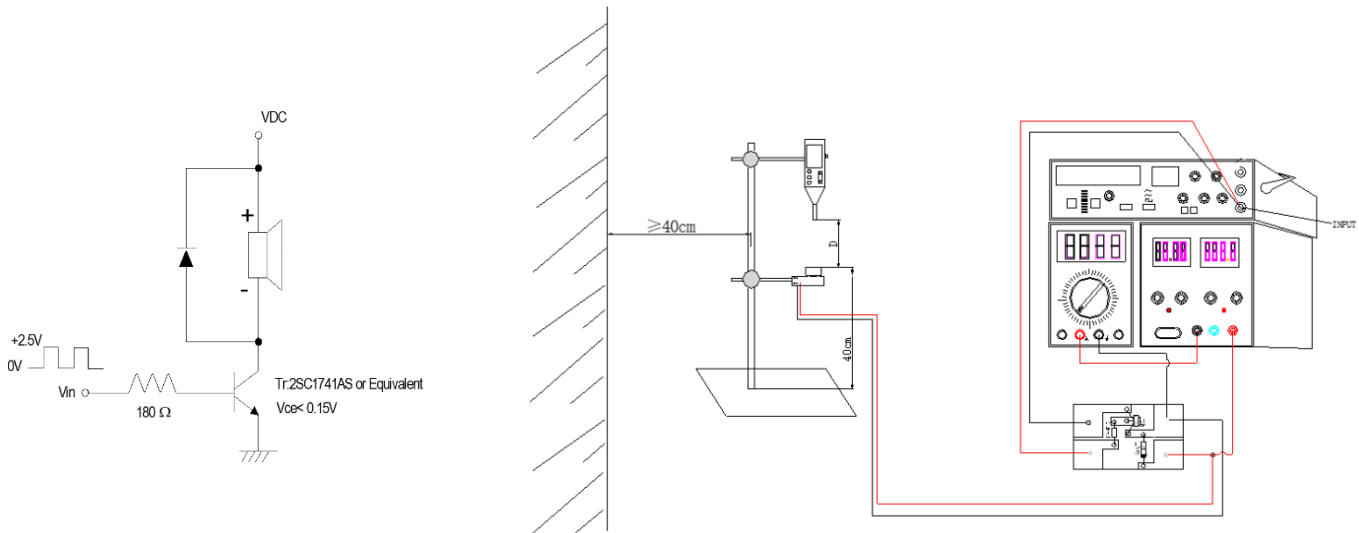
- 5Vpk, 2048Hz Magnetic Transducer
- Pin Type
- Wave Solder and Washing Allowed

Specifications

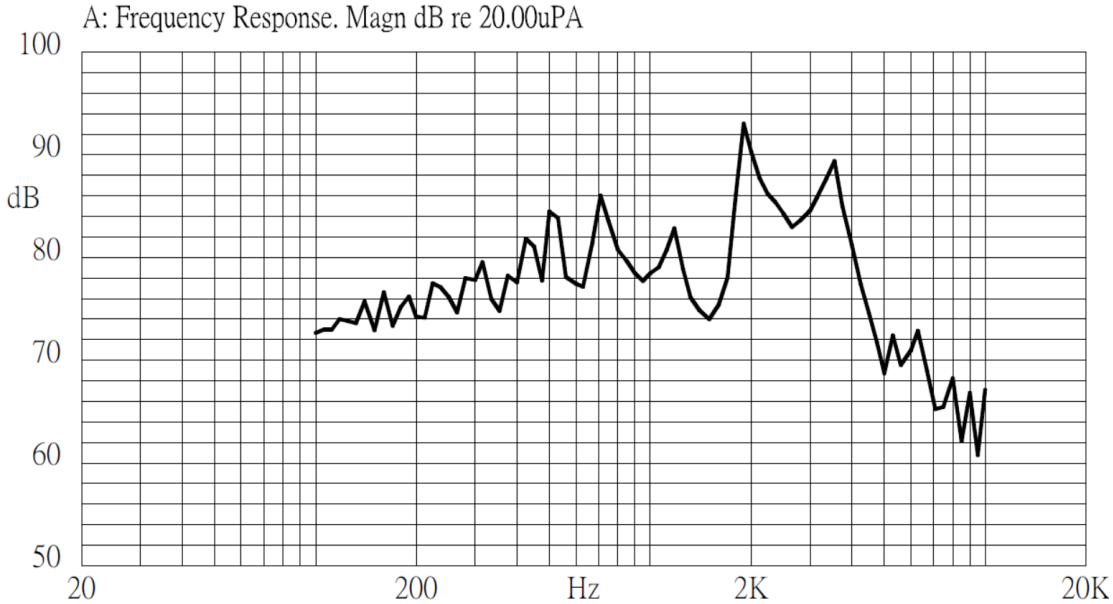
Parameters	Values	Units
Rated Voltage	5	V0-p
Operating Voltage Range	3 ~ 8	V0-p
Current Draw at Rated Voltage	45(Max.)	mA
Coil Resistance	42 ± 6	Ohms
Minimum SPL @ 10cm	85	dBA
Resonant Frequency	2,048 ± 500	Hz
Housing Material	PPO	-
Terminal Material	Sn Plated Phosphor Bronze	-
Weight	1.6	Grams
Moisture Sensitivity Level (MSL)	1	-
Acceptable Soldering Methods	Hand Solder	-
Environmental Compliances	RoHS/REACH	-
Storage Temperature	-40 ~ +85	°C
Operating Temperature	-35 ~ +75	°C

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

Standard Test Fixture (Distance: 10cm, 5V0-p, 2048 Hz square wave)



Typical Frequency Response (5Vpk, 2048HZ, 10cm)

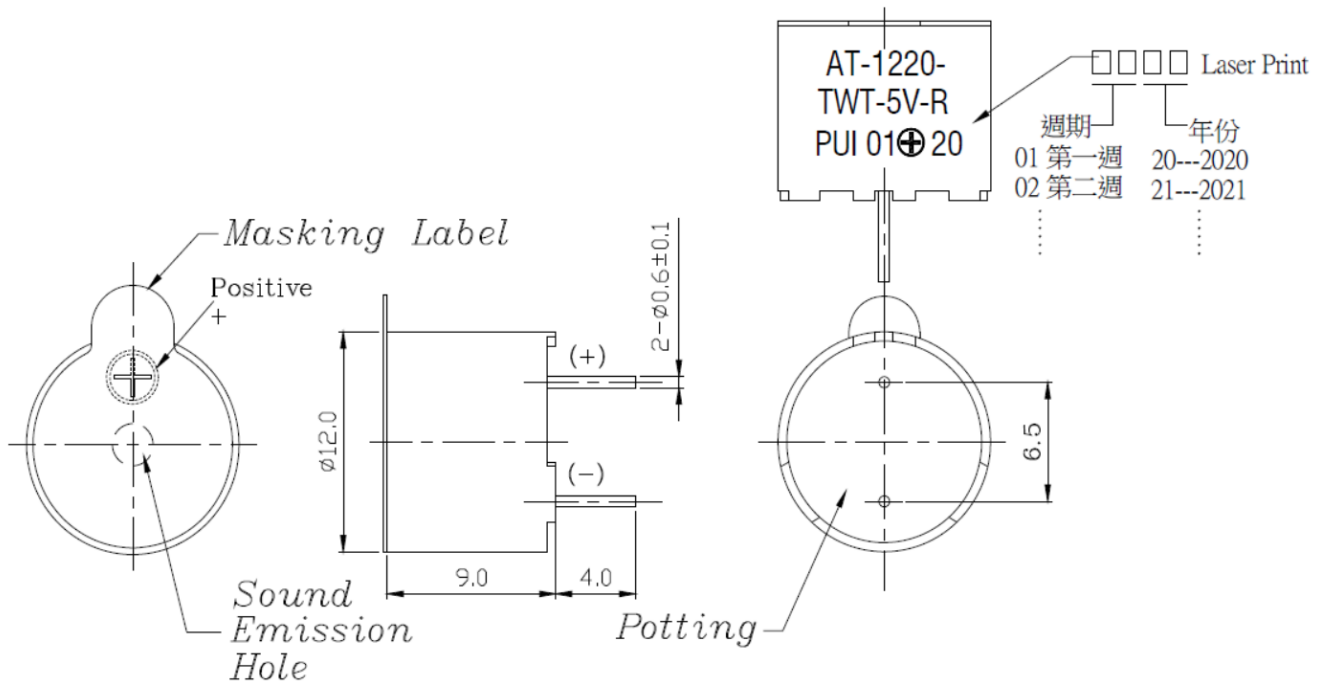


Reliability Testing

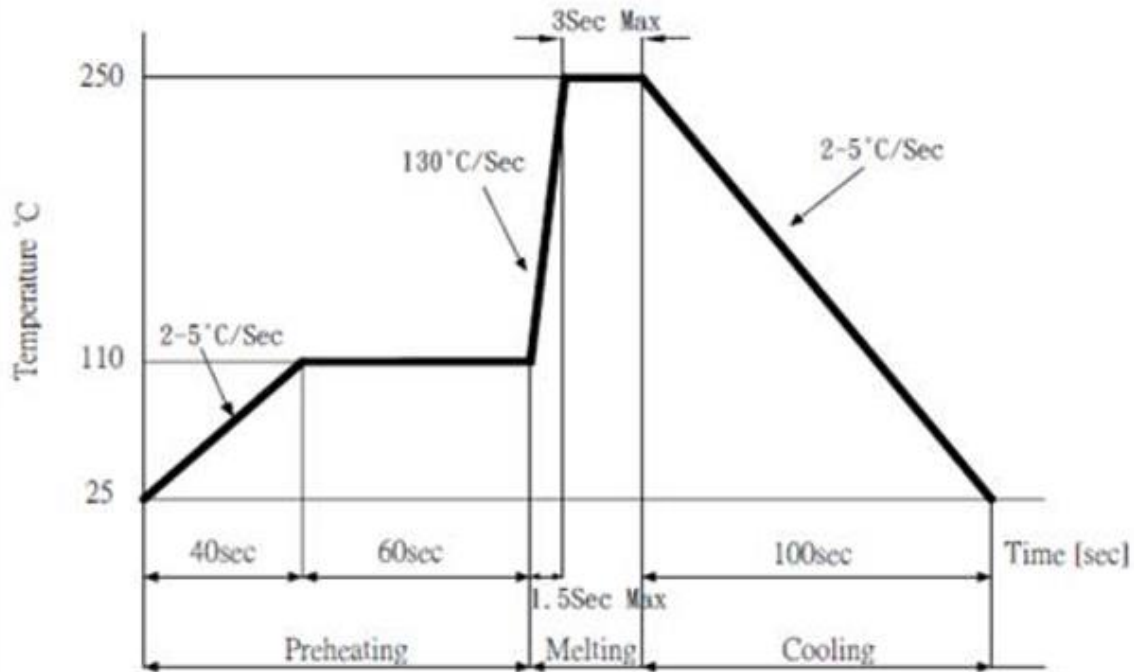
Type of Test	Test Specifications
High Temperature Test	96 hours at +85°C then rest at room temperature for 4 hours without applying power
Low Temperature Test	96 hours at -40°C then rest at room temperature for 4 hours without applying power
Humidity Test	<p>24 hours at 25°C to +70°C repeated 10 times</p>
Temperature Cycle Testing	<p>1 hour at -30°C to +70°C repeated 10 times</p>
Vibration Test	1.5 mm movement modulated at 10-55 Hz for 2 hours per axis X, Y, and Z
Drop Test	75 cm free fall onto 40mm thick wood board, 3 cycles per axis X, Y, and Z (total 9 times)
Operating Life Test	Continuous Life Test - 72 hours at +60°C with a 5V0-p, 2048 Hz signal Intermittent Life Test - 1 minute on, 1 minute off at 5V0-p, 2048 Hz signal minimum of 10,000 times

After the tests, the part should meet specifications without any degradation in appearance and performance except SPL after 4 hours at ~25°C. SPL shall be 78+dba and within ±10dba of initial.

Dimensions

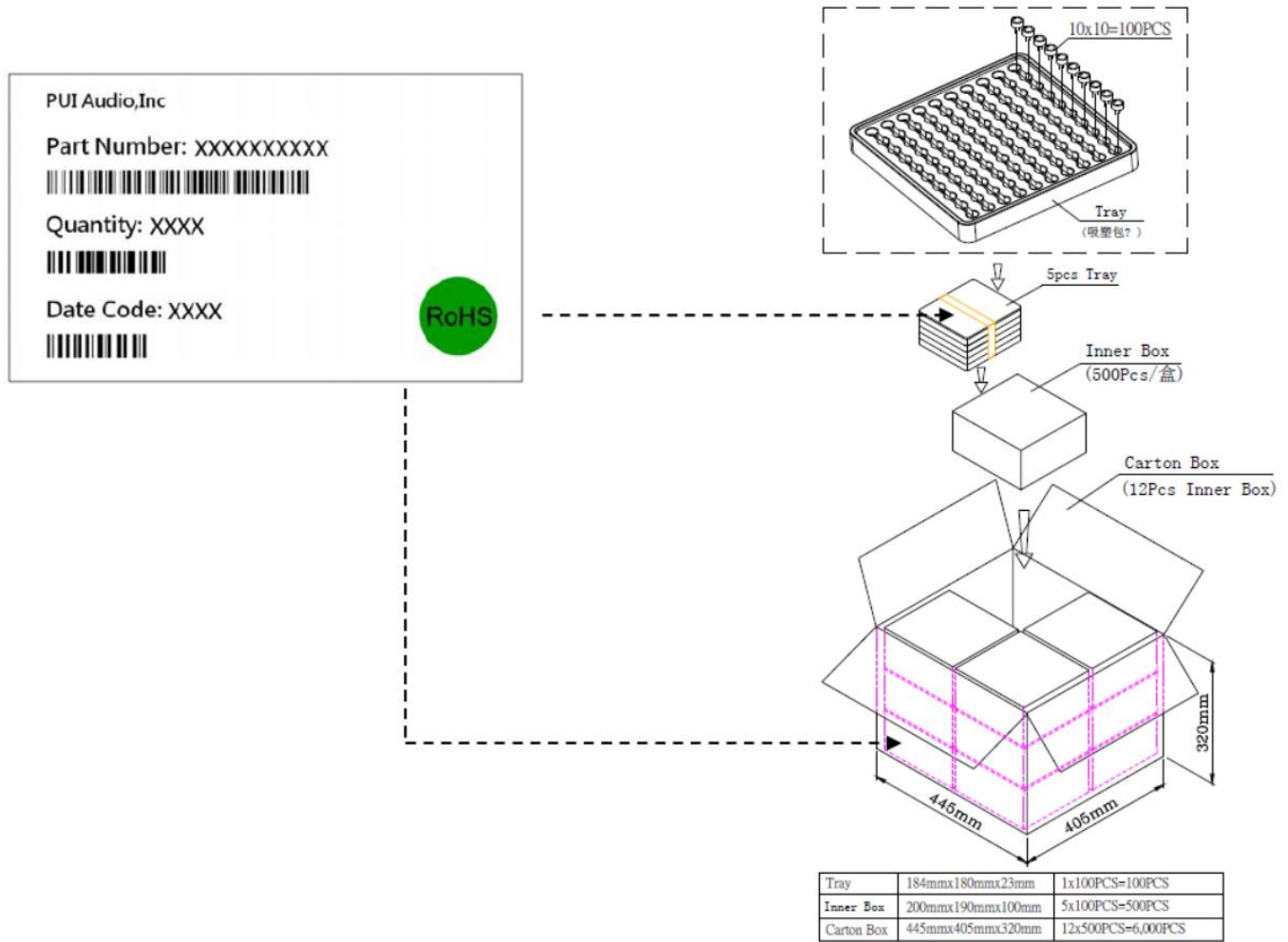


Wave Solder Profile



***Manual Soldering Temperature 350C, Soldering time 2 seconds per terminal**

Packaging



Specifications Revisions

Revision	Description	Date	Approved
-	RELEASED FROM ENGINEERING	08/05/2005	-
A	REVISED TO 3D DRAWING TEMPLATE	04/07/2008	BR
B	REVISED HOUSING MATERIAL AND ACCEPTABLE SOLDER METHOD	06/04/2019	ML
C	REVISED TEMPERATURE RATINGS, HOUSING DIMENSIONS, COIL RESISTANCE, DRIVE CIRCUIT, RELIABILITY TESTING, AND PACKAGING	11/01/2021	MV
D	Add details for Wave Soldering,	09/11/2024	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.