



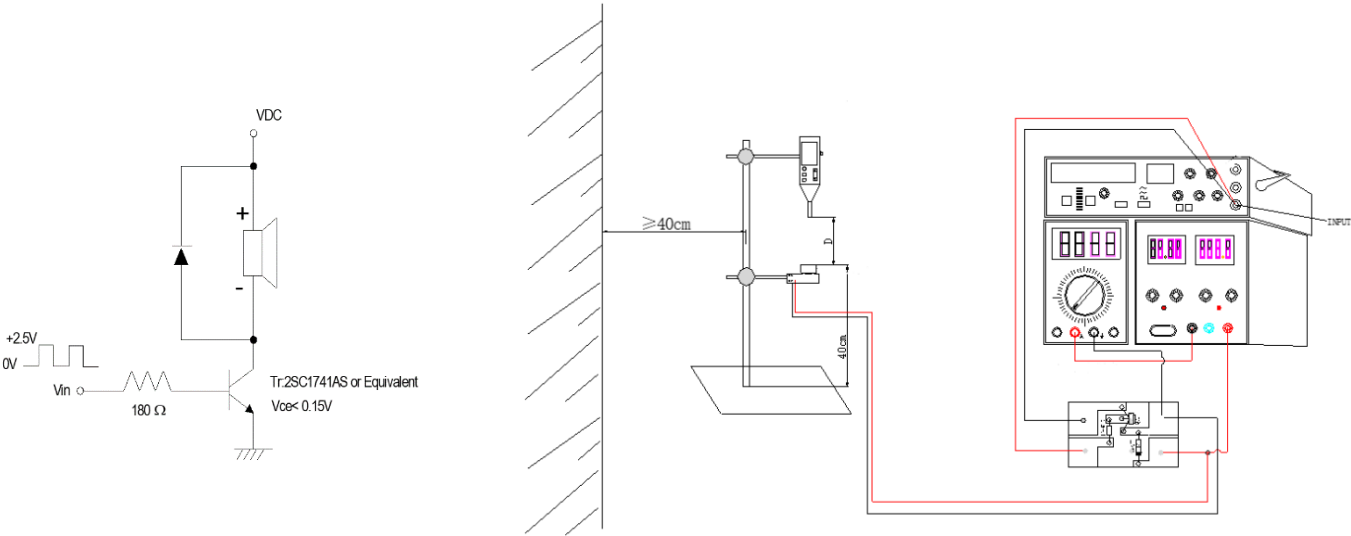
Data Sheet	AT-1224-TWT-12V-R
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- Features:**
- 12V0-pk, 2048Hz Magnetic Transducer
 - Pin Type
 - Wave Solder and Wash Allowed

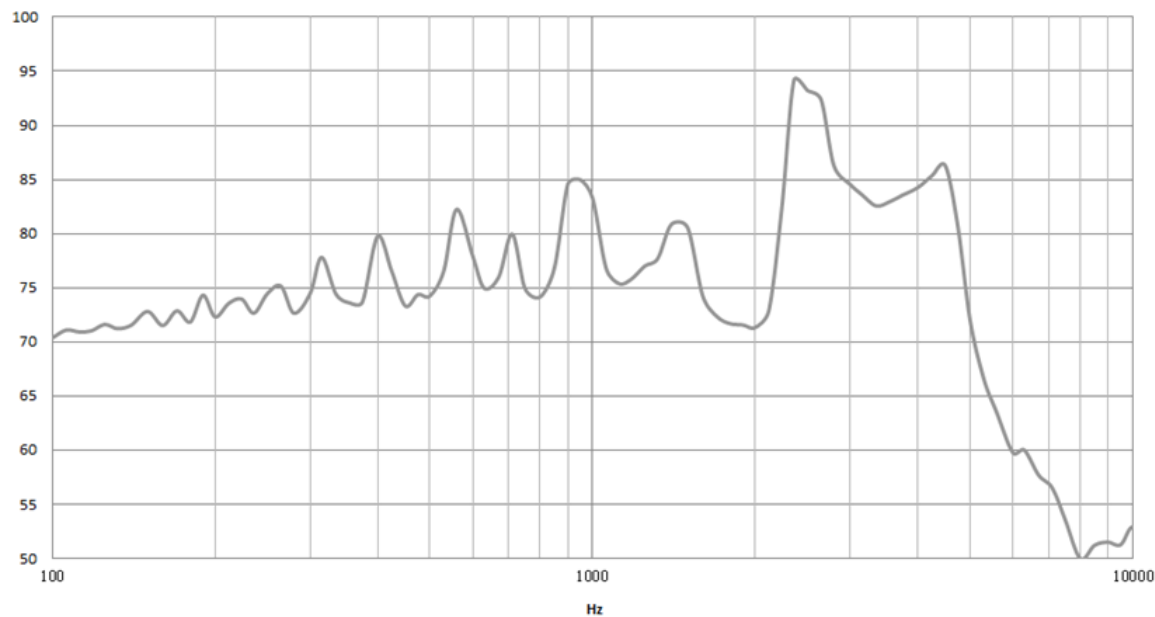
Specifications

Parameters	Values	Units
Rated Voltage	12	V0-p
Operating Voltage Range	6 ~ 15	V0-p
Current Draw at Rated Voltage	40(Max.)	mA
Coil Resistance	140 ± 14	Ohms
Minimum SPL @ 10cm	85	dBA
Resonant Frequency	2,400 ± 500	Hz
Housing Material	NORYL	-
Terminal Material	Sn Plated Copper	-
Weight	2	Grams
Acceptable Soldering Methods	Hand Solder, Wave Solder	See following pages for details
Environmental Compliances	RoHS/REACH	-
Storage Temperature	-40 ~ +85	°C
Operating Temperature	-30 ~ +70	°C

Measurement Method (Temperature: 25±3°C; Relative Humidity: 60% ~ 70%)
Standard Test Fixture (Distance: 10cm, 12 V0-p, 2400Hz square wave)



Frequency Response (12Vpk, 2.4kHz square wave @ 10cm)

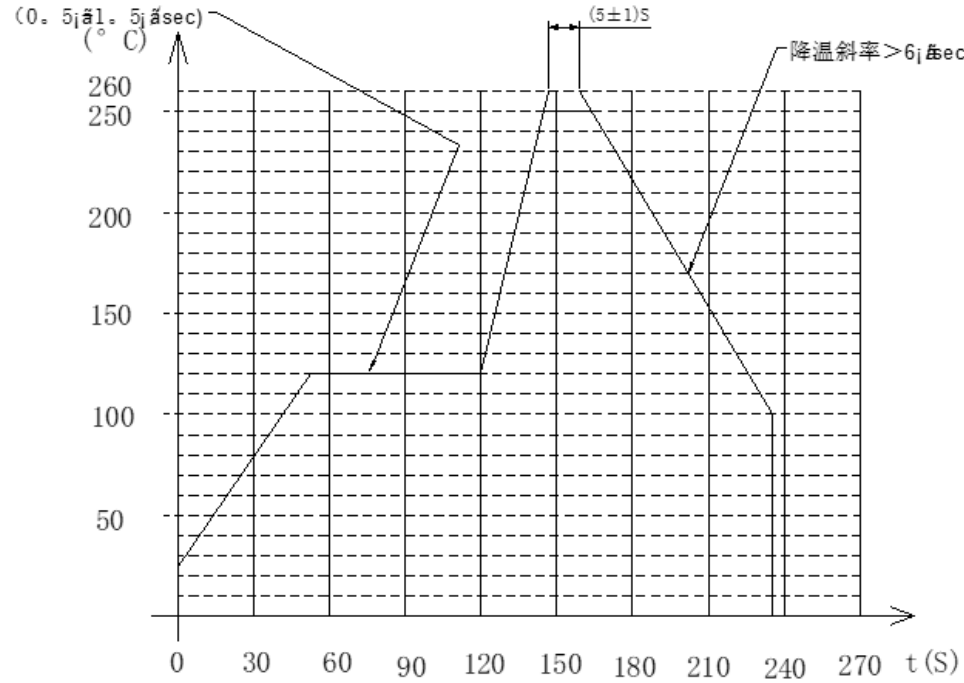


Reliability Testing

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 -40°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	Test for 5 cycles without applying power, then expose to room temperature for 2 hours
Vibration Test	Amplitude:1.5mm Time :1min/axis In X,Y,Z directions for 2 hours each (6 hours total)
Drop Test	Drop a piece from a height of 1m to the surface of a 10mm thick board, drop the piece on the X, Y, Z axis

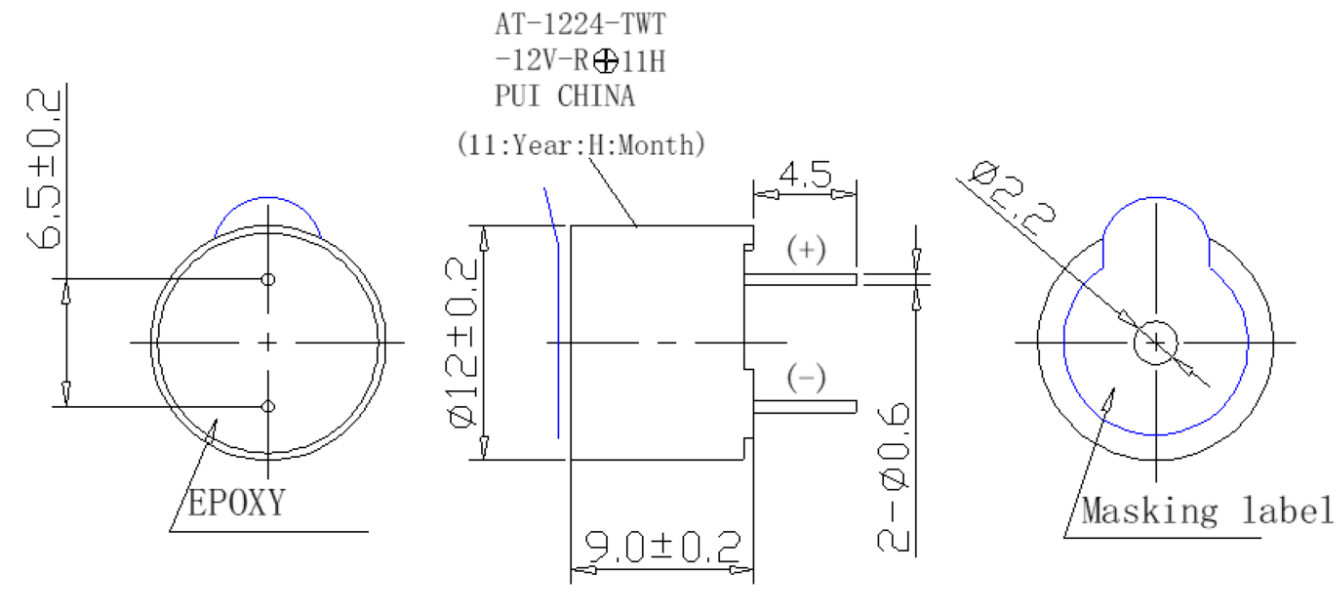
After these tests, the piece should test within ± 5dB of the original SPL

Recommended Wave Solder Profile

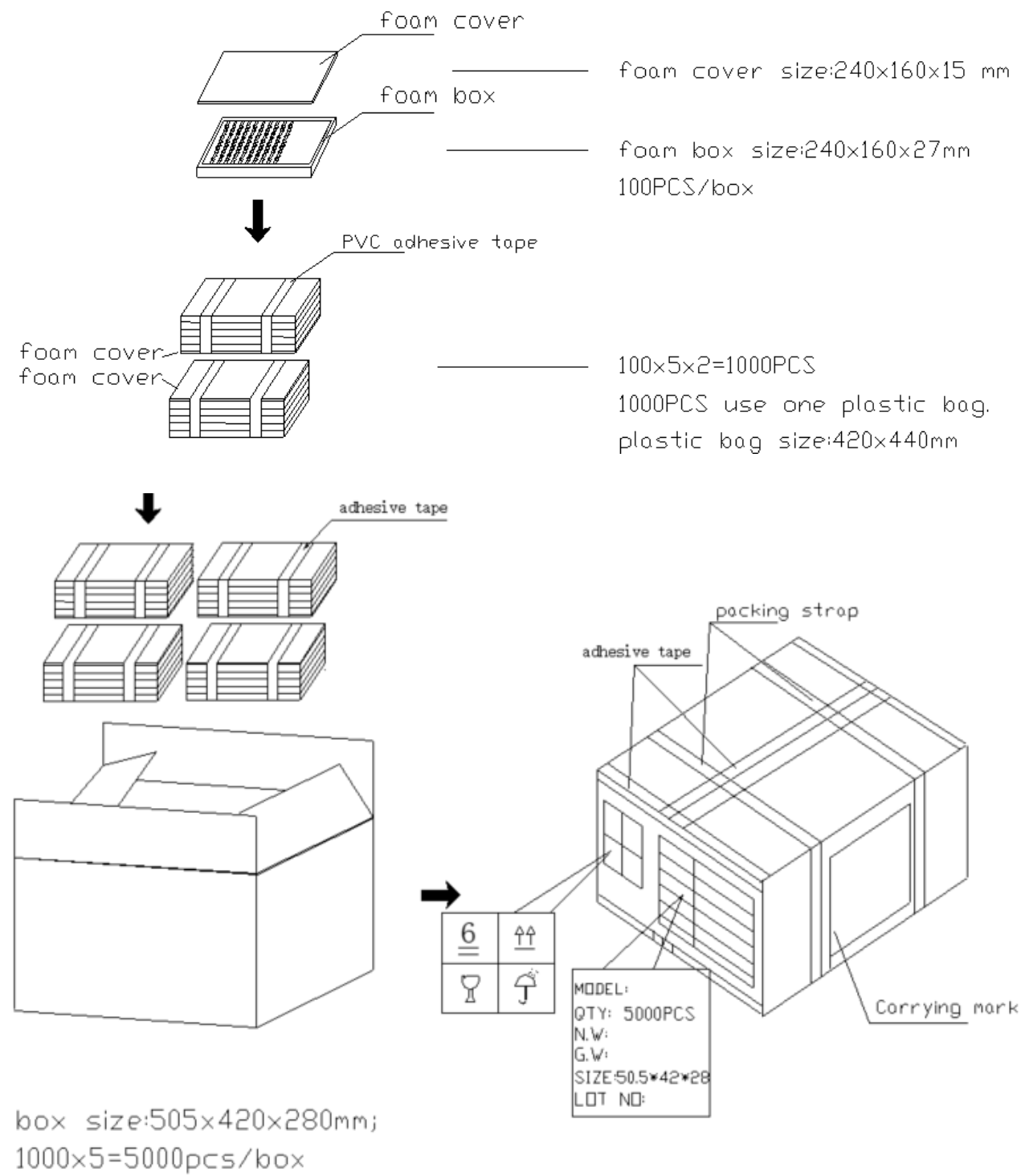


*Manual Soldering Temperature at 350C for < 3 seconds

Dimensions



Packaging



Specification Revisions			
Revision	Description	Date	Approved
-	RELEASED FROM ENGINEERING	05/17/2006	-
A	REVISED BODY DIMENSIONS	05/25/2007	RW
B	REVISED TEMPERATURE	05/11/2010	BR
C	REVISED TO 3D DRAWING TEMPLATE	05/27/2010	BR
D	CHANGE VOLTAGE FROM VPP TO VPK, UPDATE ROHS	05/16/2019	ML
E	REVISED TEMPERATURES	02/19/2020	ML
F	Update Spec Format, Add Details for Reliability, Packaging, etc. Revised Voltage Range and Operating Temperature Range	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.