



Data Sheet	AI-3039-TWT-12V-R
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Features:

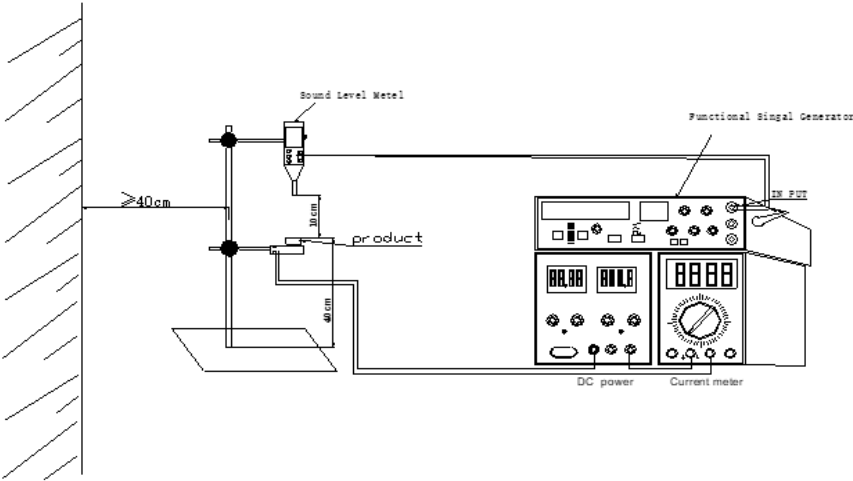
- Piezo Indicator
- 12VDC rated, 3900Hz
- Top-Firing Thru-Hole Type
- Wave Solder and Wash allowed

Specifications

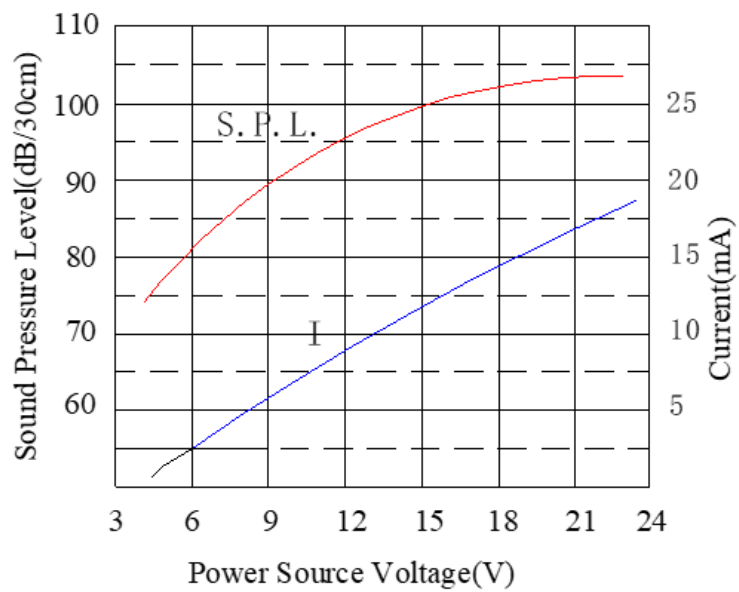
Parameters	Values	Units
Rated Voltage	12	VDC
Operating Voltage Range	3 ~ 24	VDC
Current Draw at Rated Voltage	15(Max.)	mA
Minimum SPL @ 10cm	100	dBA
Minimum SPL @ 30cm	90	
Resonant Frequency	3,900 ± 500	Hz
Tone or Pulse Rate	Continuous	-
Housing Material	PBT	-
Terminal Material	Sn Plated Copper	-
Weight	8	Grams
Acceptable Soldering Methods	Hand Solder, Wave Solder	-
Environmental Compliances	RoHS/REACH	Ex. 7c-1
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, 12VDC)



Typical SPL vs Input Voltage

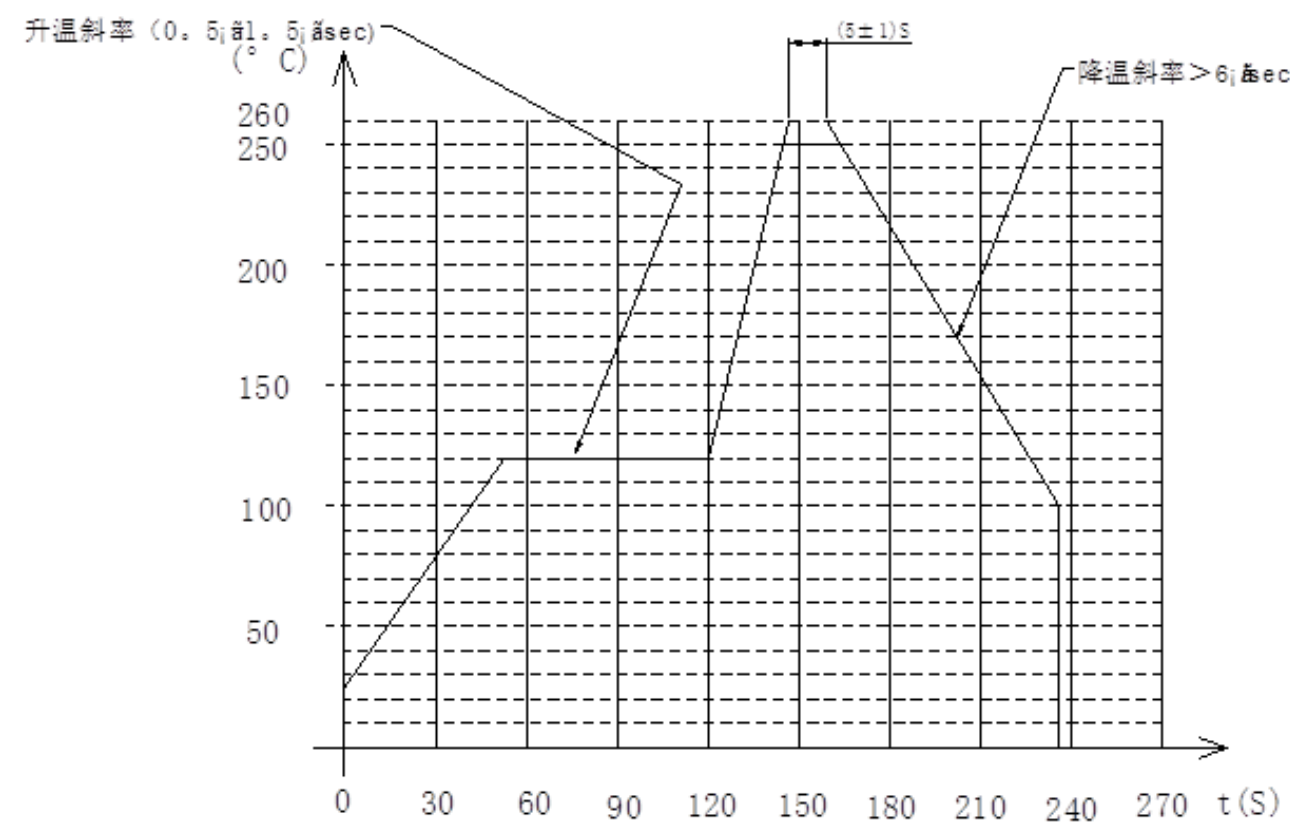


Reliability Testing

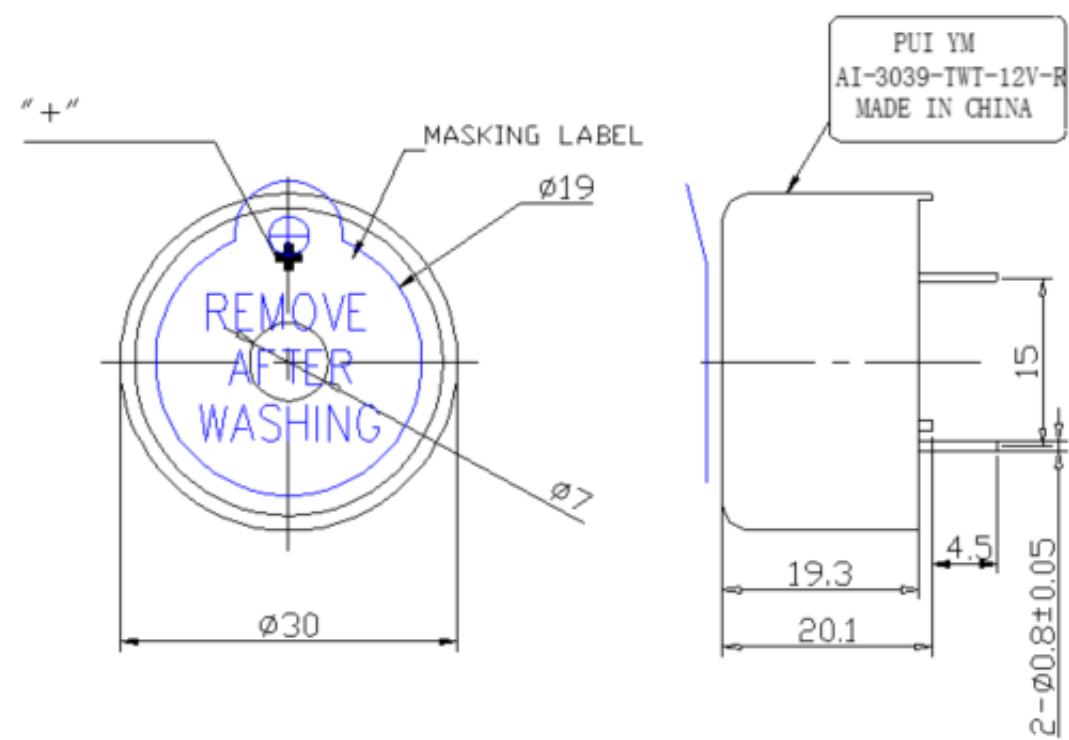
Type of Test	Test Specifications
High Temperature Test	Storage in +80°C ± 2°C test box for 96 hours, then expose to the room temperature for 2 hours without applying power.
Low Temperature Test	Storage in -30°C ± 2°C test box for 96 hours, then expose to the room temperature for 2 hours without applying power.
Humidity Test	Storage in +40°C ± 2°C 90-95%RH test box for 96 hours, then expose to the room temperature for 2 hours without applying power.
Temperature Cycle Testing	Make this test for 5 cycles without applying power, then expose to the room temperature for 2 hours.
Vibration Test	Amplitude: 1.5mm Time : 1min/axis Make this test for the directions of X, Y, Z for 2 hours each (total 6 hours)
Drop Test	Free drop a unit from the height 70cm to the surface of 10mm thick board, three directions (X, Y, Z).

Part shall pass tests within SPL of ±5dB.

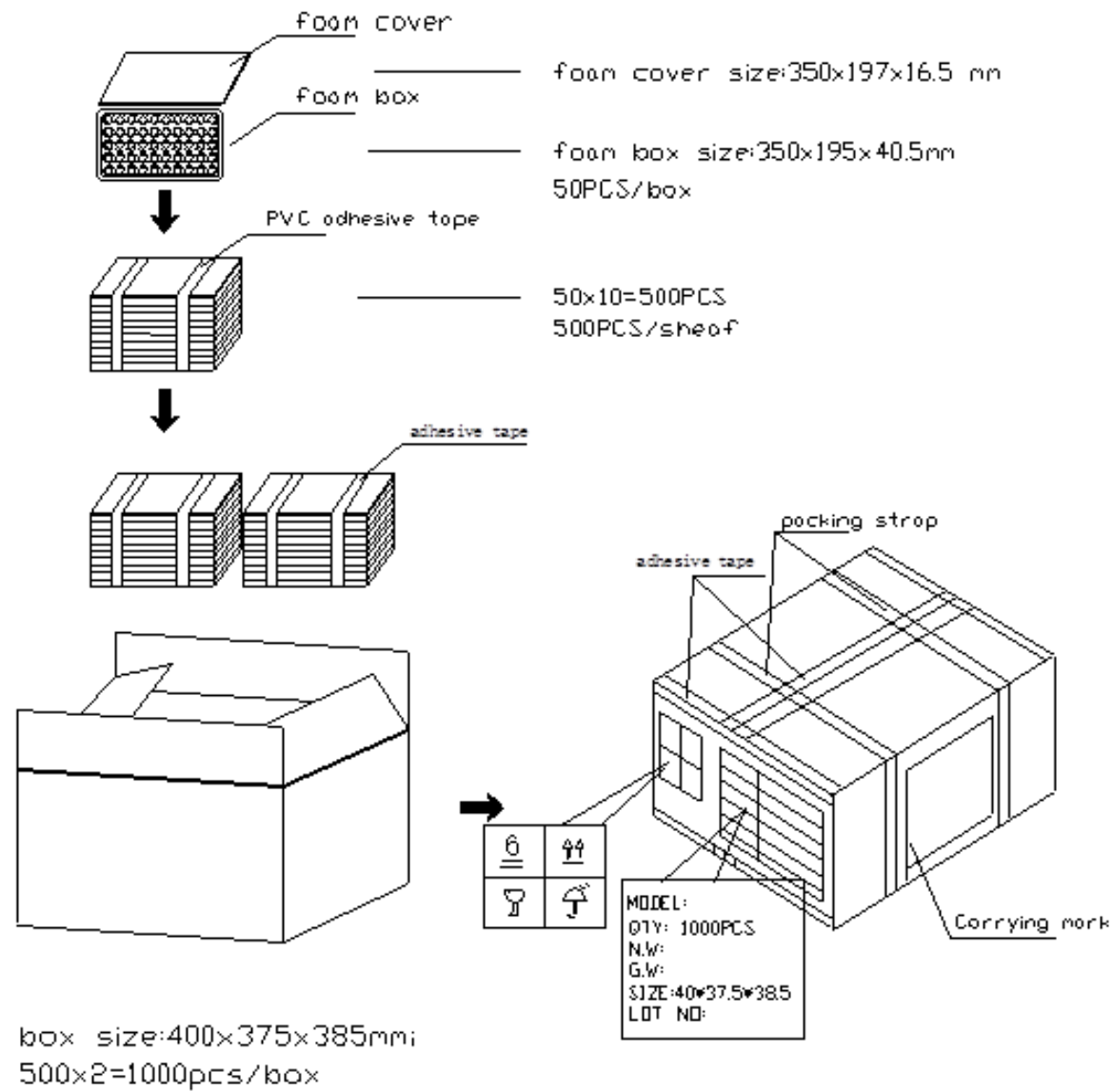
Recommended Wave Solder Profile



Dimensions



Packaging



Specifications Revisions

Revision	Description	Date	Approved
-	RELEASED FROM ENGINEERING	08/17/2005	-
A	REVISED BODY HEIGHT DIMENSION	12/07/2007	BR
B	REVISED TO INVENTOR 3D DRAWING TEMPLATE	02/14/2008	BR
C	NEGATIVE POLARITY MARK REMOVED POSITIVE POLARITY MARK RECESSED	07/05/2017	MV
D	REVISED HOUSING DIMENSIONS	08/21/2017	ML
E	Update Spec Format, Drawing Image, Add Details for Reliability, Packaging, Etc.	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.