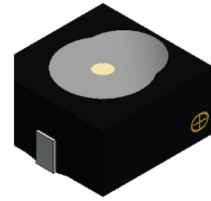




# PUIaudio



Data Sheet

SMI-1027-TW-12V-R

## Features:

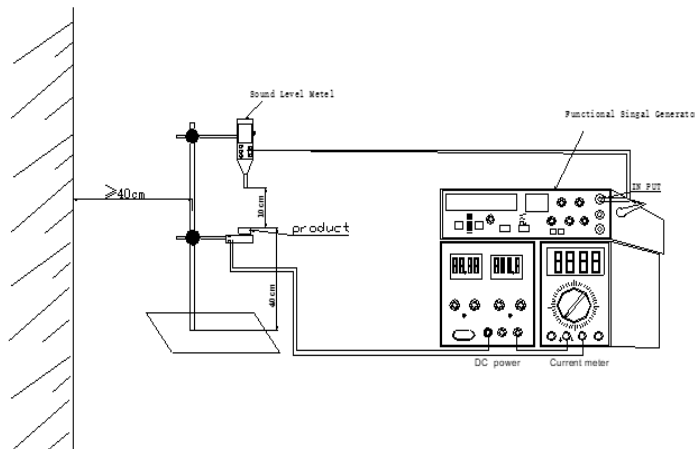
- 7 to 15 VDC voltage range with low 30 mA current draw
- 2700 Hz tone for peak perception above ambient noise
- Wide -40°C to +85°C operating temperature range
- Reflow and Washing Allowed

## Specifications

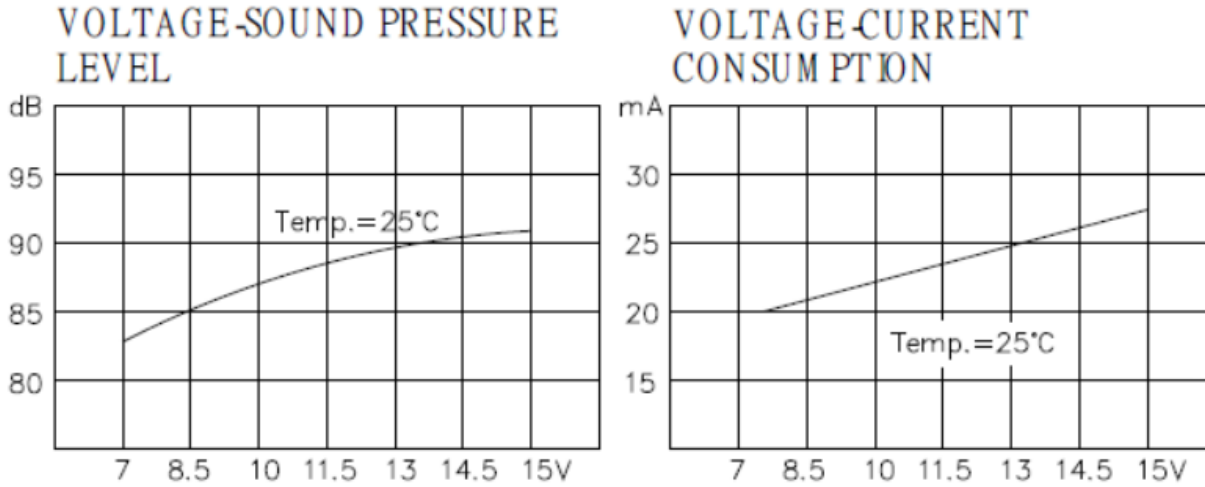
Parameters	Values	Units
Rated Voltage	12	VDC
Operating Voltage Range	7 ~ 15	VDC
Current Draw at Rated Voltage (Max)	30	mA
Minimum SPL @ 10cm	85	dBa
Resonant Frequency	2700 ± 200	Hz
Tone or Pulse Rate	Continuous Tone	-
Housing Material	PPS	-
Terminal Material	Sn Plated Brass	-
Weight	1.5	Grams
Moisture Sensitive Level (MSL)	2a	Less than or equal to 30C/60%RH, 4 weeks
Acceptable Soldering Methods	Reflow Solder	See following pages for details
Environmental Compliances	RoHS/REACH	-
Storage Temperature	-40~+85	°C
Operating Temperature	-40~+85	°C

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

Standard Test Fixture (Distance: 10cm, 12VDC)



## Typical SPL vs Voltage vs Current



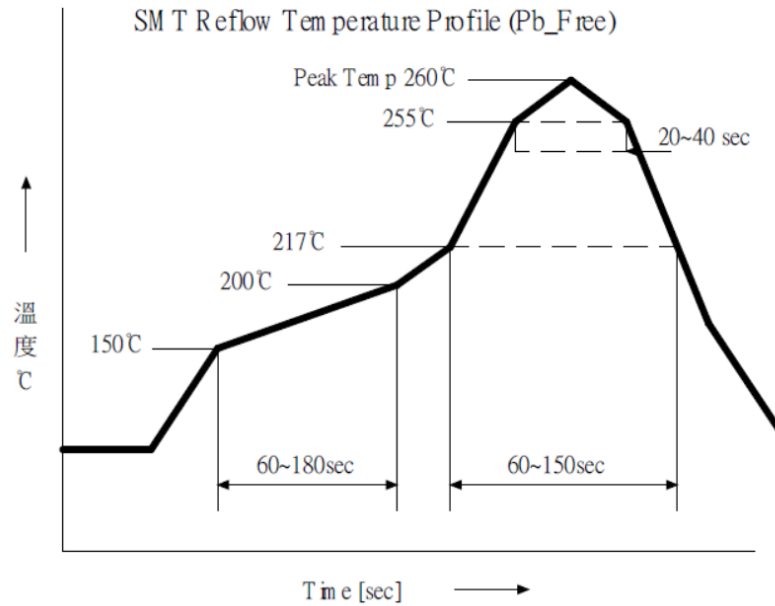
## Reliability Testing

Type of Test	Test Specifications
High Temperature Test	Place inside chamber for 96 hours at +85°C.
Low Temperature Test	Place inside chamber for 96 hours at -40°C.
Thermal Shock	Subject part to 10 cycles of the cycle shown below. 
Temp/Humidity Cycle Test	Subject part to 10 cycles of the cycle shown below. 
Operating Life Test	1. Continuous life test - The part shall be subjected to 72 hours at +70°C with 12VDC applied. 2. Intermittent life test - A duty cycle of 1 minute on, 1 minute off, a minimum of 10000 times at room temp. (25±10°C) with 12.0VDC applied.

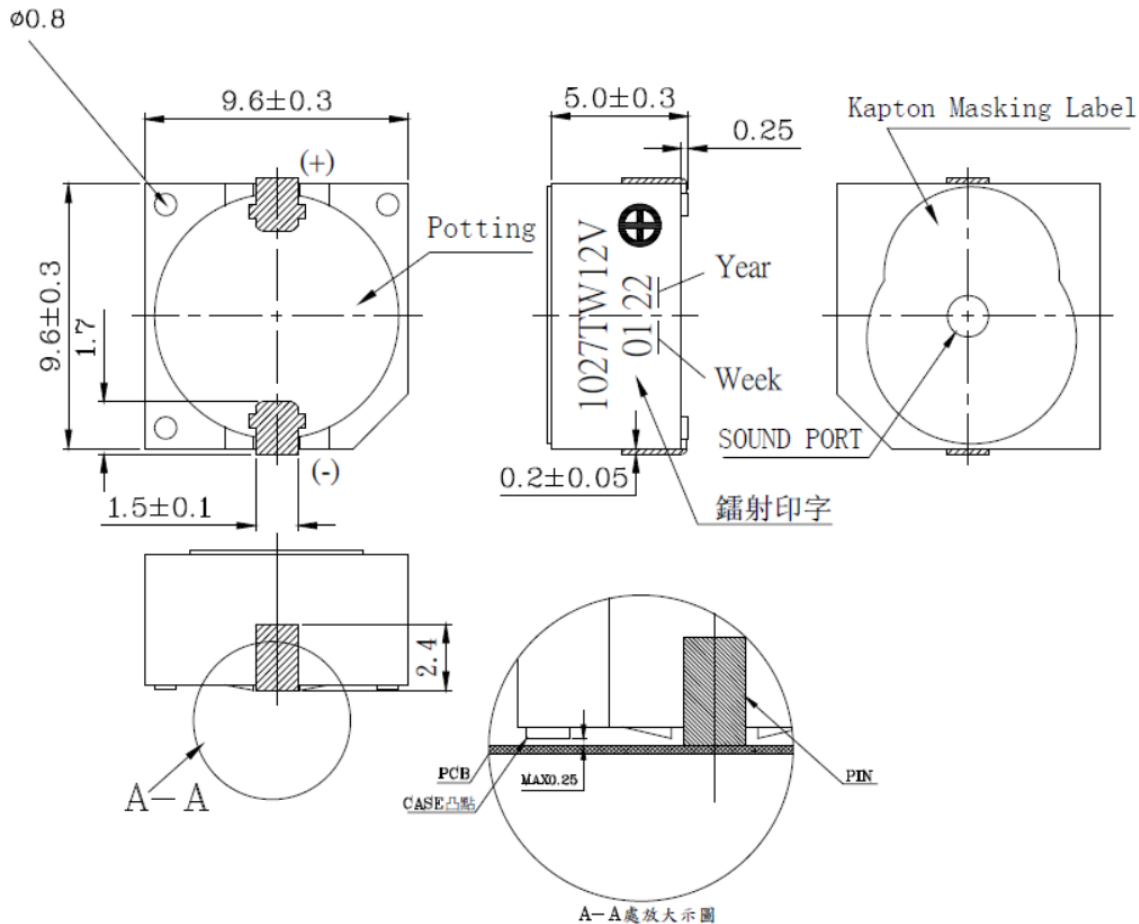
**After testing, the part shall be without any degradation in appearance or performance except SPL. After 4 hours at +25°C, the SPL shall measure ±10 dBA compared to initial measurement.**

## Recommended Reflow Profile

### One Reflow Cycle Only

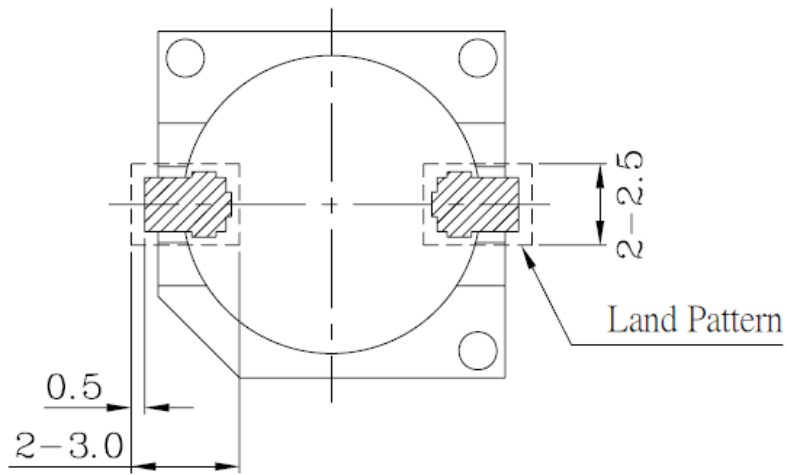


## Dimensions



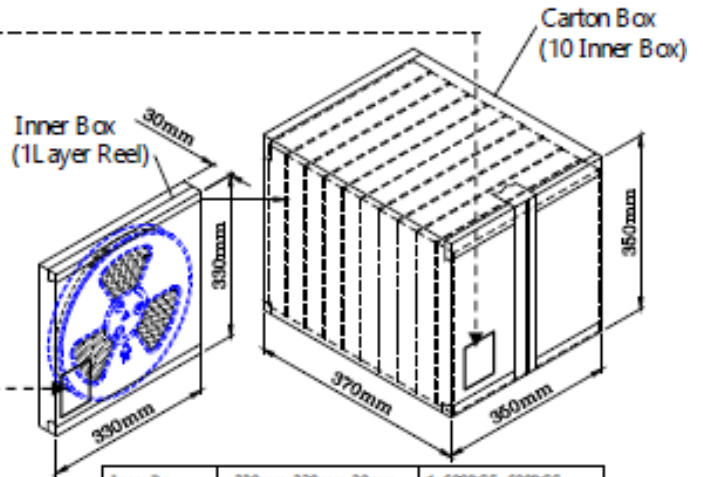
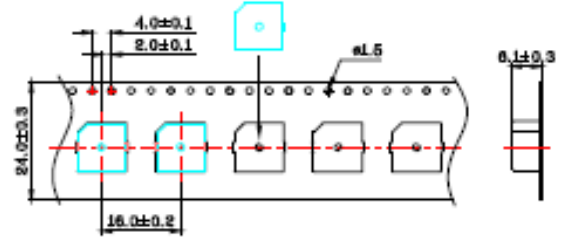
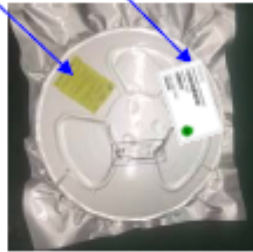
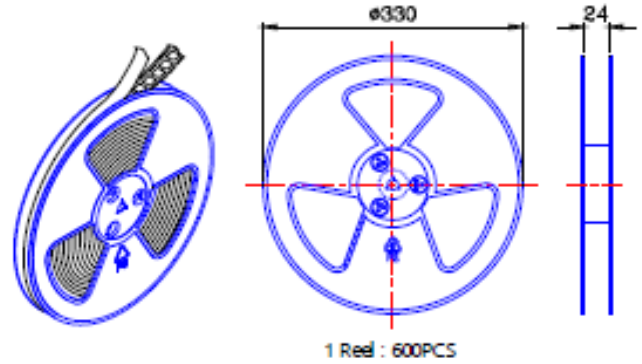
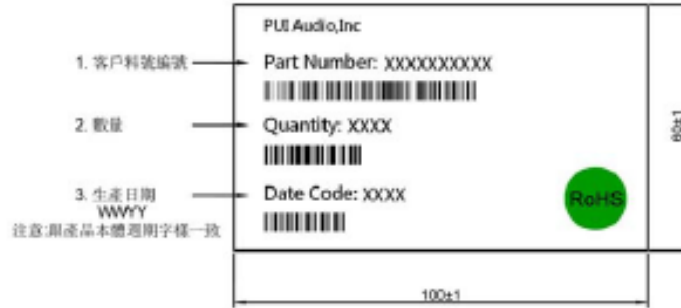
Tolerance  $\pm 0.5$ mm unless otherwise specified

## Suggested Land Pattern\*



\*This land pattern is advisory only and its use or adaptation is entirely voluntary. PUI Audio disclaims all liability of any kind associated with the use, application, or adaptation of this land pattern.

# Packaging



Inner Box	330mmx330mmx30mm	1x600PCS=600PCS
Carton Box	350mmx350mmx370mm	10x600PCS=6,000PCS

防潮防靜電真空包裝袋 (MBB) / 內附乾燥劑 / HIC 卡 / MSD 標貼 (符合 MSL-2a) / 條碼標籤  
 包裝袋外貼黃色 MSD 標貼 (符合 MSL-2a) / 條碼標籤  
 包裝規範需符合 J-STD-033 國際標準定義要求

**Specifications Revisions**

<b>Revision</b>	<b>Description</b>	<b>Date</b>	<b>Approved</b>
-	Released from Engineering	11/11/2014	-
A	Added note to Reflow Solder Profile	06/27/2019	-
B	Updated Drawing	11/08/2022	-
C	Revised to add MSL 2a condition and packaging	06/06/2023	ML
D	Add Details for Reliability, Washing Allowed Note	08/01/2024	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.