

Data Sheet

SMT-1027-S-HT-R

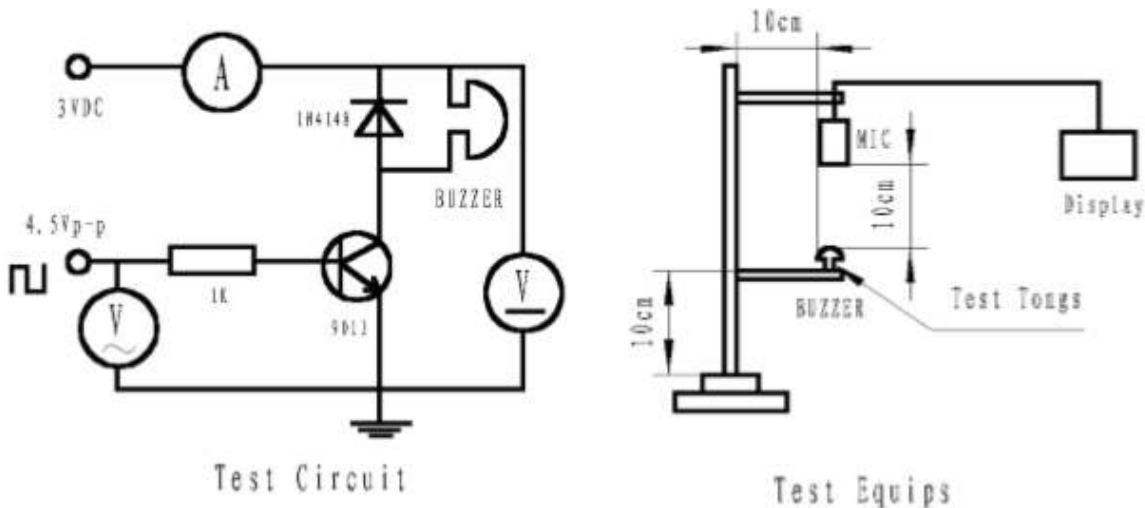
PUI Audio's **High-Temp** line of products is designed to meet and exceed the needs of the automotive industry with ultra-wide operating temperatures. The **SMT-1027-S-HT-R** is designed for high output at 2700 Hz in a small package.

- Wide -40°C to +105°C operating temperature
- Weighs only 0.8 grams
- ≥85 dB output at 10cm with 3V0-p input

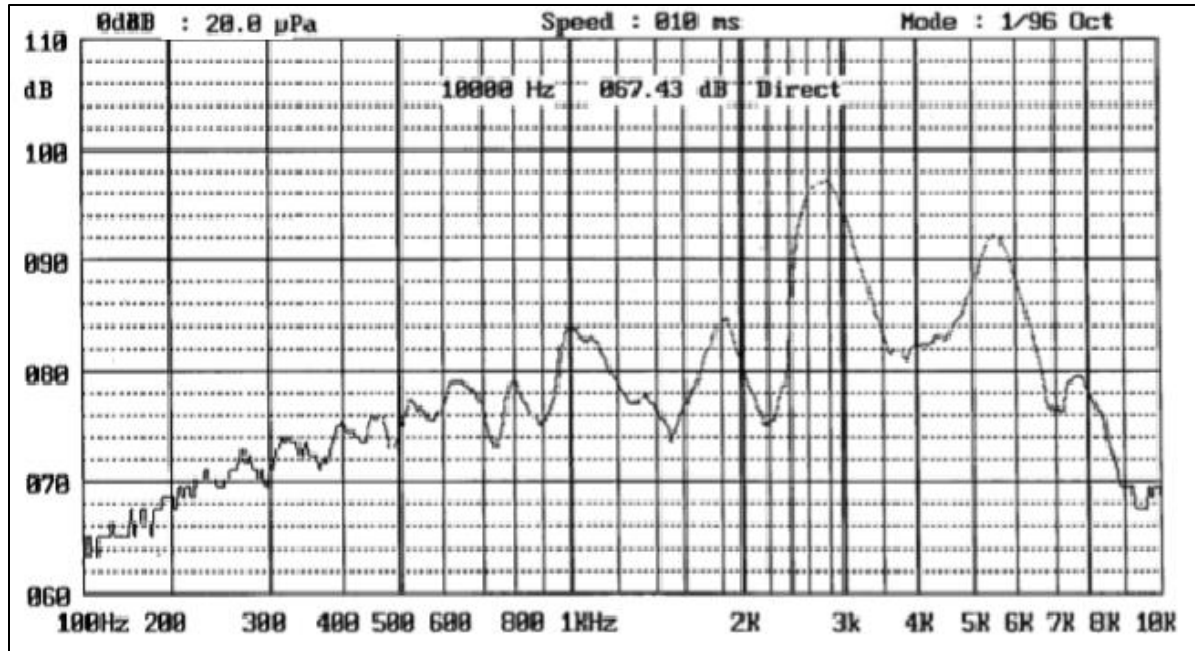
### Specification

Parameters	Values	Units
Rated Voltage	3	V0-p
Operating Voltage Range	2 ~ 5	V0-p
Current Draw at Rated Voltage	≤80	mA
Coil Resistance	16±3	Ohms
Minimum SPL @ 10cm	≥85	dBA
Resonant Frequency	2700 ± 500	Hz
Housing Material	LCP	-
Weight	0.8	Grams
Acceptable Soldering Methods	Hand Solder, Reflow Solder	See page 2 for soldering information
Environmental Compliances	RoHS	-
Storage Temperature	-40 ~ +120	°C
Operating Temperature	-40 ~ +105	°C

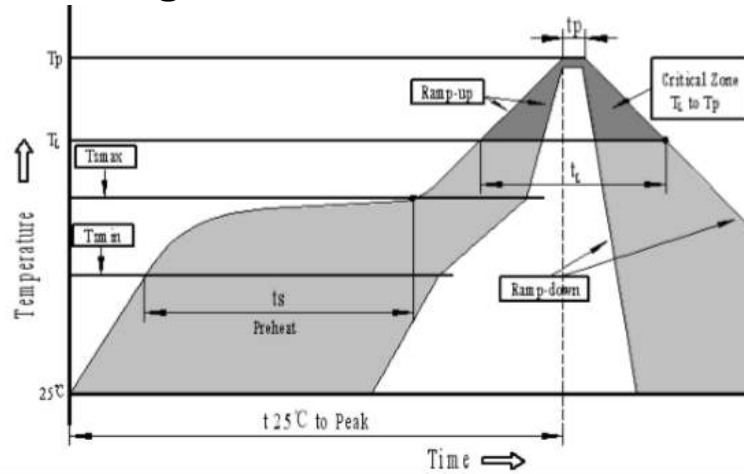
### Measurement Method (3 V0-p, 2700 Hz, 50% duty cycle square wave with SPL meter spaced at 10cm)



## Typical Frequency Response (3 V0-p sine-sweep with microphone spaced at 10cm)



## Recommended Soldering Procedure



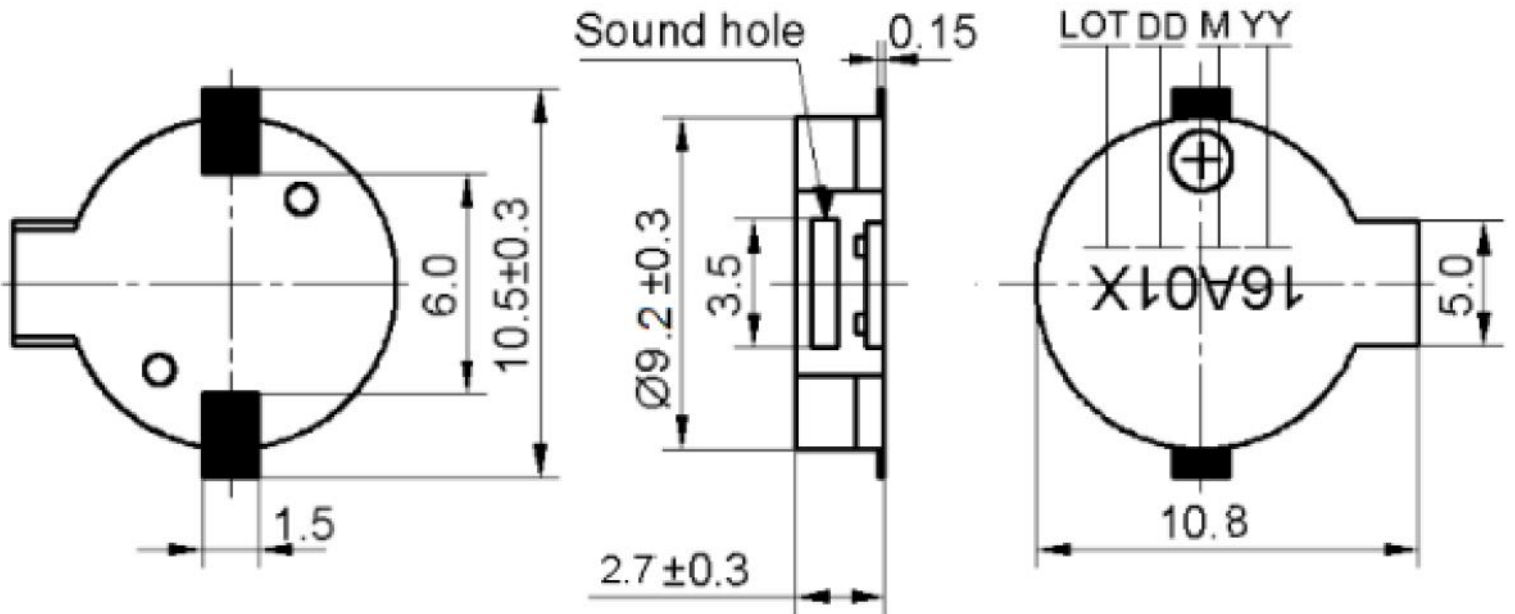
Profile Feature	Pb-Free Assembly
Average ramp-up rate( $T_L$ to $T_p$ )	3°C/second max.
Preheat	
-Temperature Min. ( $T_{smin}$ )	150°C
-Temperature Min. ( $T_{smax}$ )	200°C
-Temperature Min. ( $t_s$ )	60~180 seconds
$T_{smax}$ to $T_L$	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
- Temperature( $T_L$ )	217°C
-Time( $T_L$ )	60~150 seconds
Peak temperature( $T_p$ )	250°C+0/-5°C
Time within 5°C of actual Peak temperature ( $t_p$ )	6 seconds max.
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

## Reliability Testing

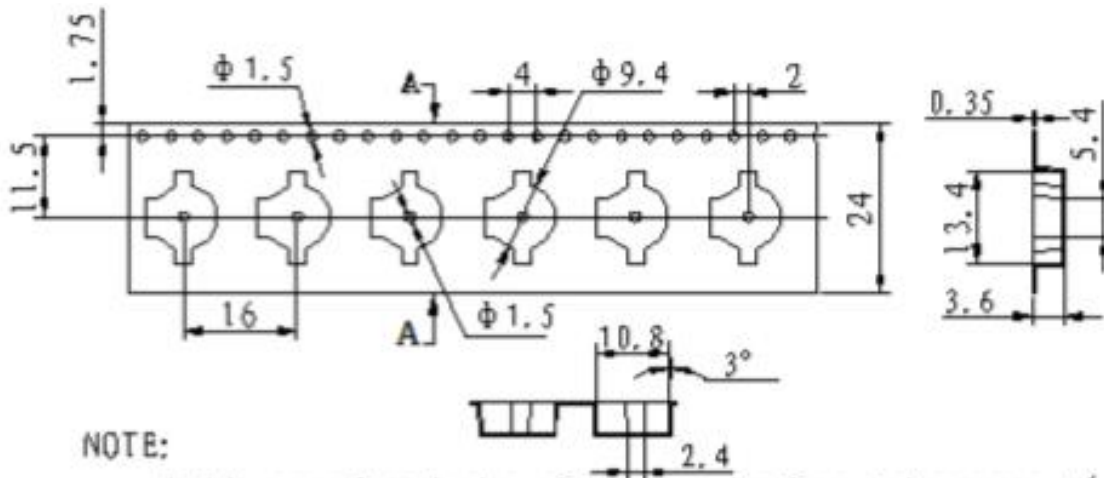
Type of Test	Test Specifications
High Temperature Test	Test at +120°C for 120 hours
Low Temperature Test	Test at -40°C for 120 hours
Humidity Test	40±2°C, 90~95% RH, 120 hours
Temperature Cycle Testing	Total 5 cycles, 1 cycle consisting of -40±2°C, 30 minutes 20±5°C 15 minutes 120±2°C, 30 minutes 20±5°C 15 minutes
Vibration Test	The part shall be subjected to a vibration cycle of 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm (9.3g). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.
Shock Test	The part should be measured after being applied shock (980m/s <sup>2</sup> ) for each three mutually perpendicular directions to each of 3 times by half sine wave.
Drop Test	Dropped from a height of 70cm onto the surface of a 10mm thick wooden board.

After the test the part shall meet specifications without any degradation in appearance and performance except SPL should be within ± 10dB of the initial value. Complete the test 2 hours after experiment.

## Dimensions (Tolerance: ± 0.5mm unless otherwise specified)

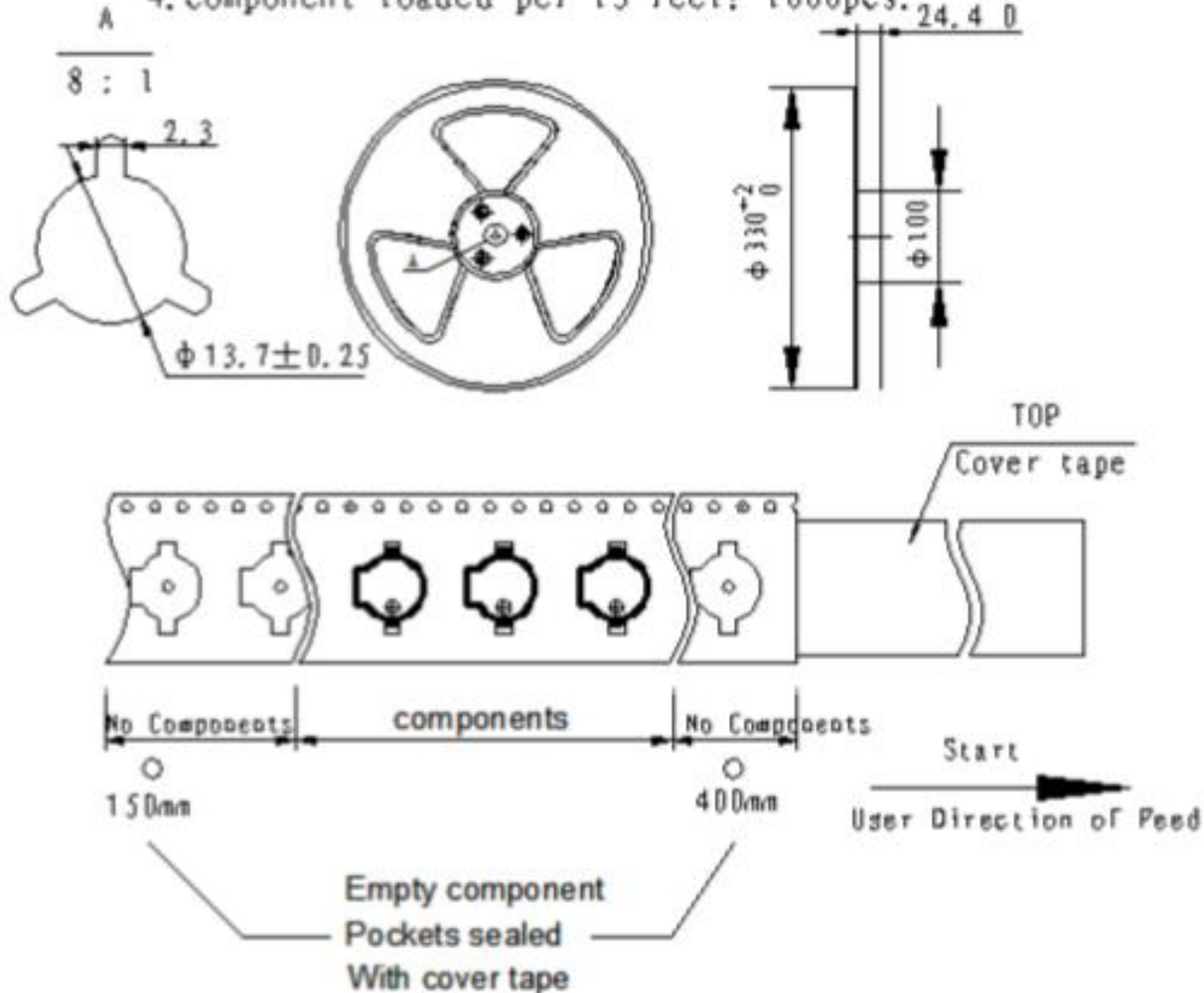


## Packaging

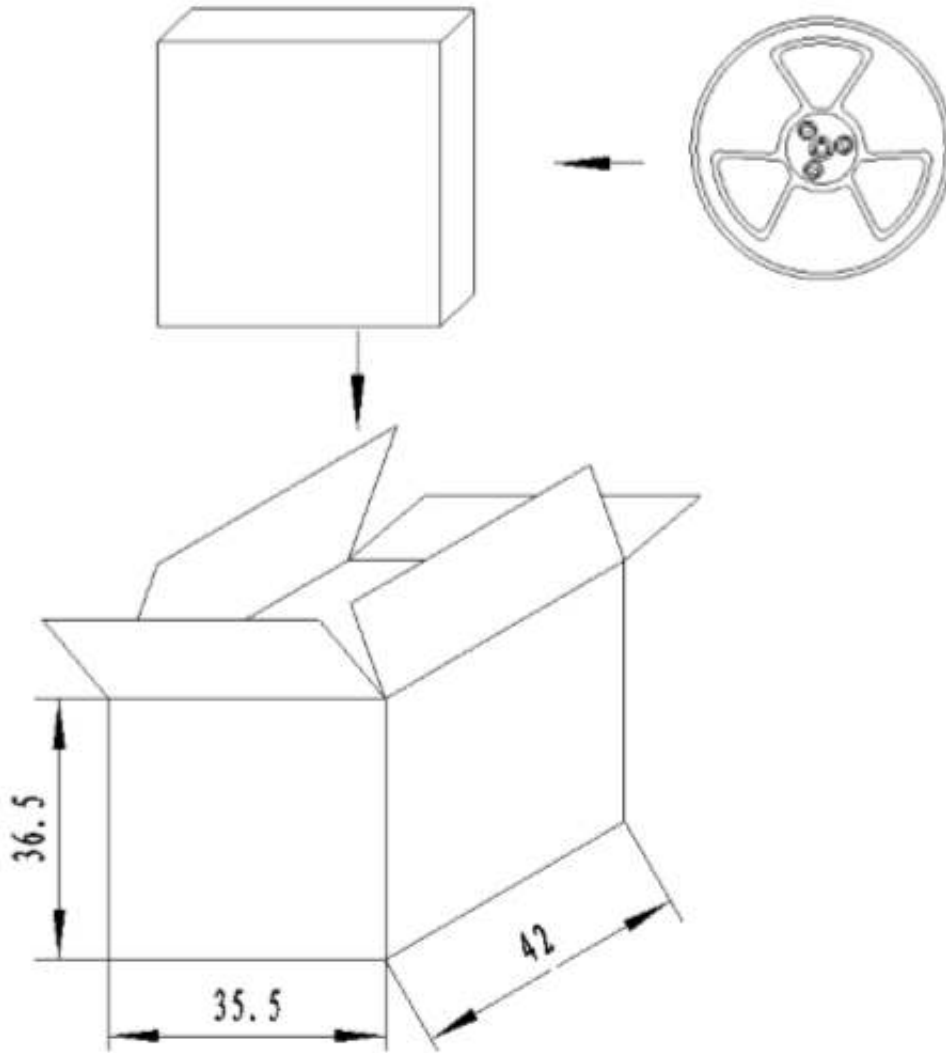


NOTE:

1. 10 sprocket hole pitch cumulative tolerance  $\pm 0.2$ mm.
2. All dimensions meet EIA-481-D requirements.
3. Thickness:  $0.35 \pm 0.05$ mm.
4. Component loaded per 13" reel:  $1000 \text{ pcs.} \begin{matrix} +2 \\ 24,4 \\ 0 \end{matrix}$



## Packaging (cont'd)



### NOTES:

- 1.1000PCS per box
- 2.Total 10 boxes per carton
- 3.Total 10000 PCS carton

**Specifications Revisions**

<b>Revision</b>	<b>Description</b>	<b>Date</b>
Preliminary	Released from Engineering	3/9/2020

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.