

Data Sheet

SMT-1027-S-HT-R

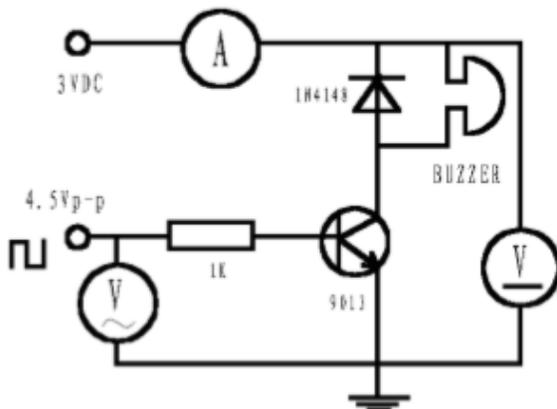
PUI Audio's **High-Temp** line of products is designed to meet and exceed the needs of the automotive industry with ultra-wide operating temperatures. The **SMT-1027-S-HT-R** is designed for high output at 2700 Hz in a small package.

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

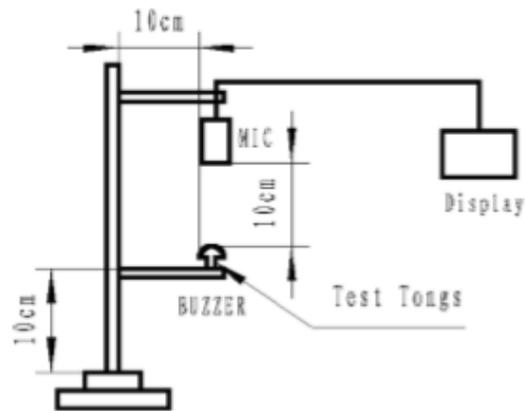
Specification

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)

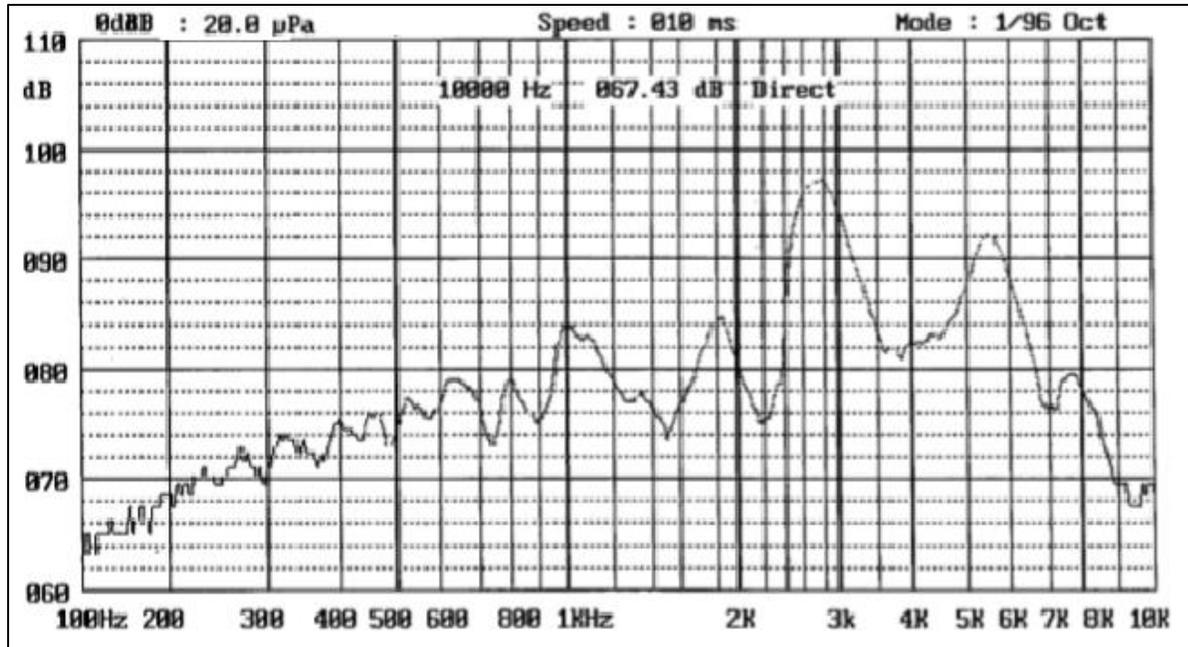


Test Circuit

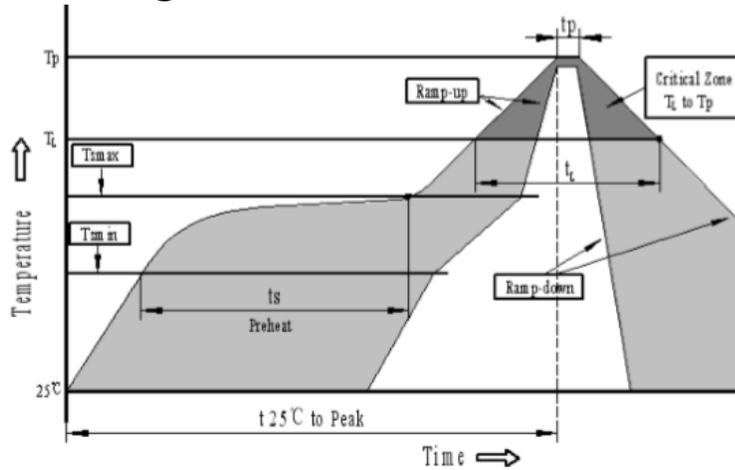


Test Equipis

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



Recommended Soldering Procedure



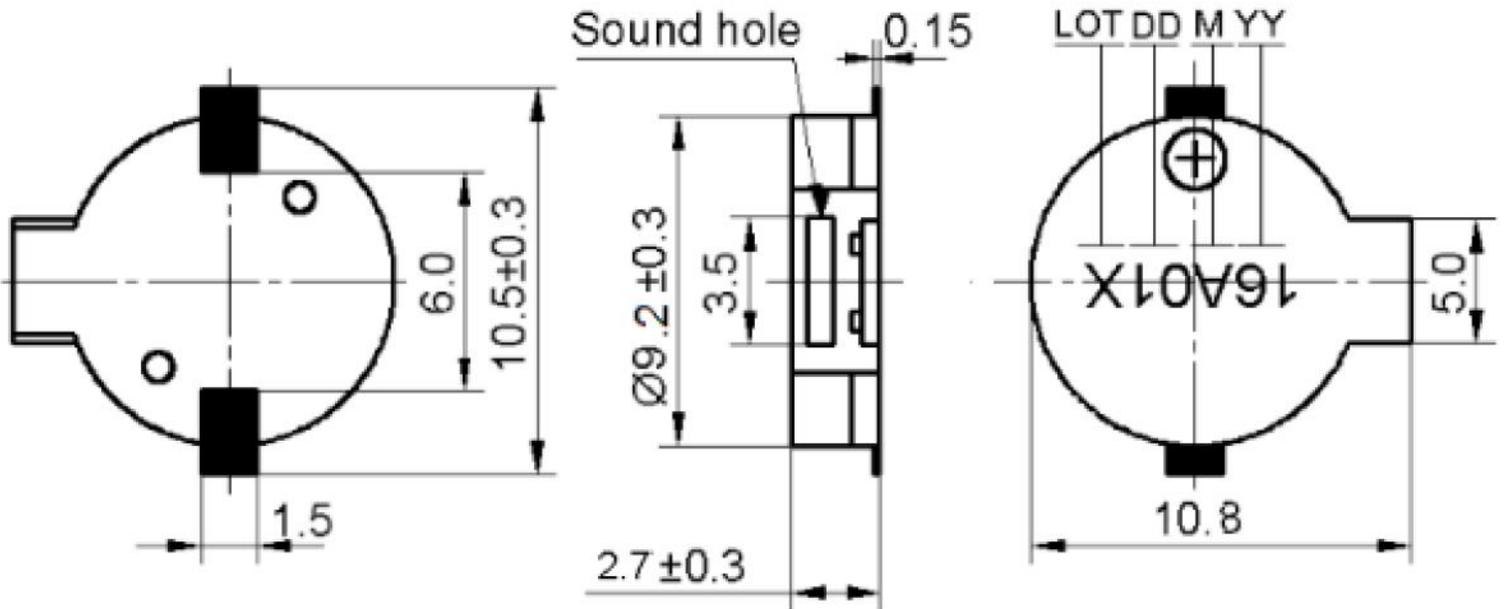
Profile Feature	Pb-Free Assembly
Average ramp-up rate(T_L to T_p)	3°C/second max.
Preheat	
-Temperature Min. ($T_{s_{min}}$)	150°C
-Temperature Min. ($T_{s_{max}}$)	200°C
-Temperature Min. (t_s)	60~180 seconds
$T_{s_{max}}$ to T_L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
- Temperature(T_L)	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

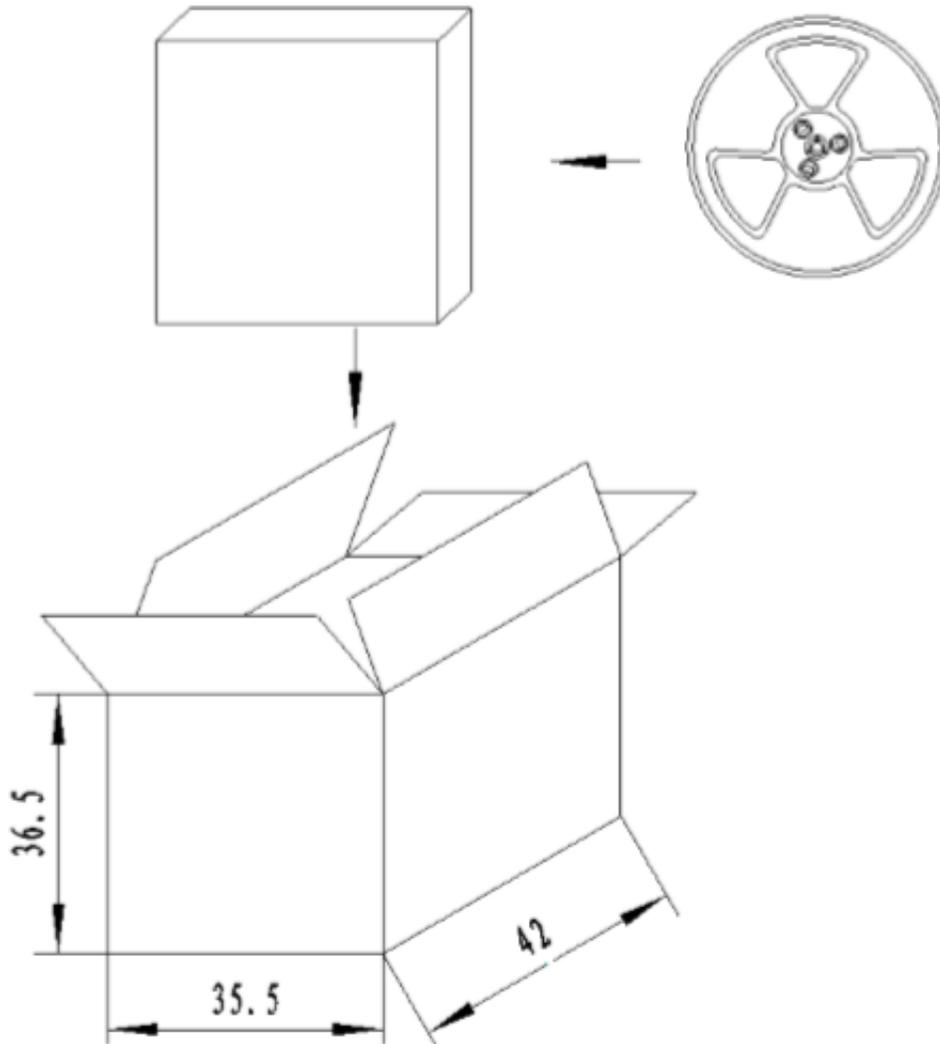
Type of Test	Test Specifications
High Temperature Test	Test at +120°C for 120 hours
Low Temperature Test	Test at -40°C for 120 hours
Humidity Test	40±2°C, 90~95% RH, 120 hours
Temperature Cycle Testing	Total 5 cycles, 1 cycle consisting of -40±2°C, 30 minutes 20±5°C 15 minutes 120±2°C, 30 minutes 20±5°C 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 ²) 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 (cont'd)



NOTES:

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

Specifications Revisions

Revision	Description	Date
Preliminary	Released from Engineering	3/9/2020

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.