Data Sheet	SMT-1320-T-HT-R

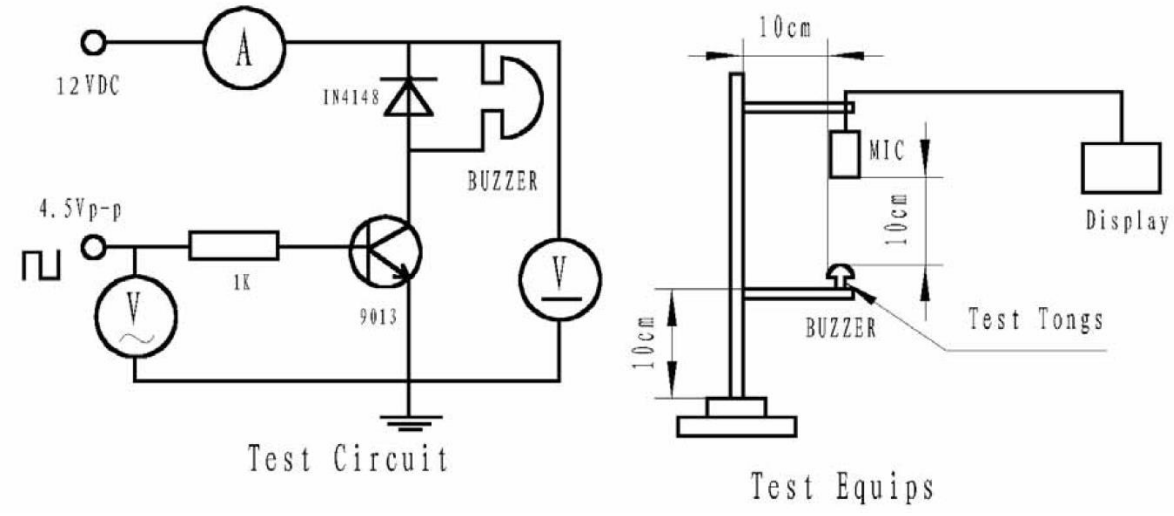
PUI Audio's **High Temperature** line of products is designed to withstand ultra-wide operating temperatures. The **SMT-1320-T-HT-R** is designed for high output at 2 kHz in a small package.

- Wide -40°C to +105°C operating temperature
- ≥90 dB output at 10cm with 12V0-p input
- Easy to drive with a PWM-driven, single-ended circuit

Specifications

Parameters	Values	Units
Rated Voltage	12	V0-p
Operating Voltage Range	8 ~ 16	V0-p
Current Draw at Rated Voltage	≤40	mA
Coil Resistance	140 ±16	Ohms
Minimum SPL @ 10cm	90	dBA
Resonant Frequency	2000 ±500	Hz
Housing Material	LCP	-
Weight	2	Grams
Acceptable Soldering Methods	Hand Solder, Reflow Solder	See page 3 for soldering information
Environmental Compliances	RoHS	-
Moisture Sensitivity Level	1	-
Storage Temperature	-40 ~ +105	°C
Operating Temperature	-40 ~ +105	°C

Measurement Method (12 V0-p, 2 kHz, 50% duty cycle square wave with SPL meter spaced at 10cm)



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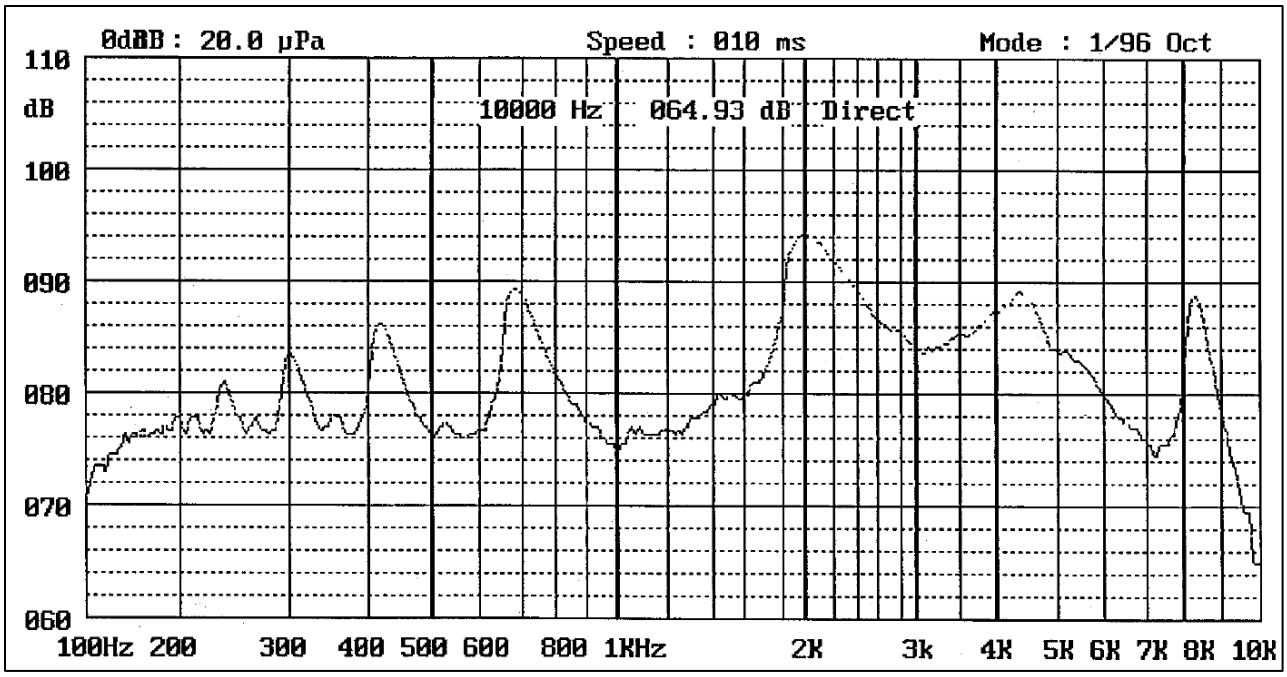
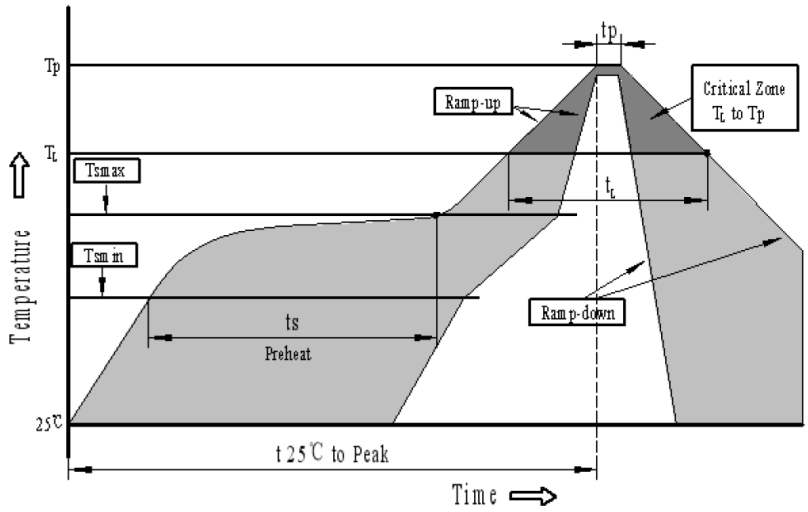
Typical Frequency Response (12 V0-p sine-sweep with microphone spaced at 10cm)



Recommended Soldering Procedure



Profile Feature	Pb-Free Assembly
Average ramp-up rate(T_L to Tp)	3℃/second max.
Preheat	
-Temperature Min.(Ts_{min})	150℃
-Temperature Min.(Ts_{max})	200℃
-Temperature Min.(ts)	60～180 seconds
Ts_{max} to T_L	
-Ramp-up Rate	3℃/second max.
Time maintained above:	
- Temperature(T_L)	217℃
-Time(T_L)	60～150 seconds
Peak temperature(Tp)	245℃+0/-5℃
Time within 5℃of actual Peak temperature (tp)	6 seconds max.
Ramp-down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max.

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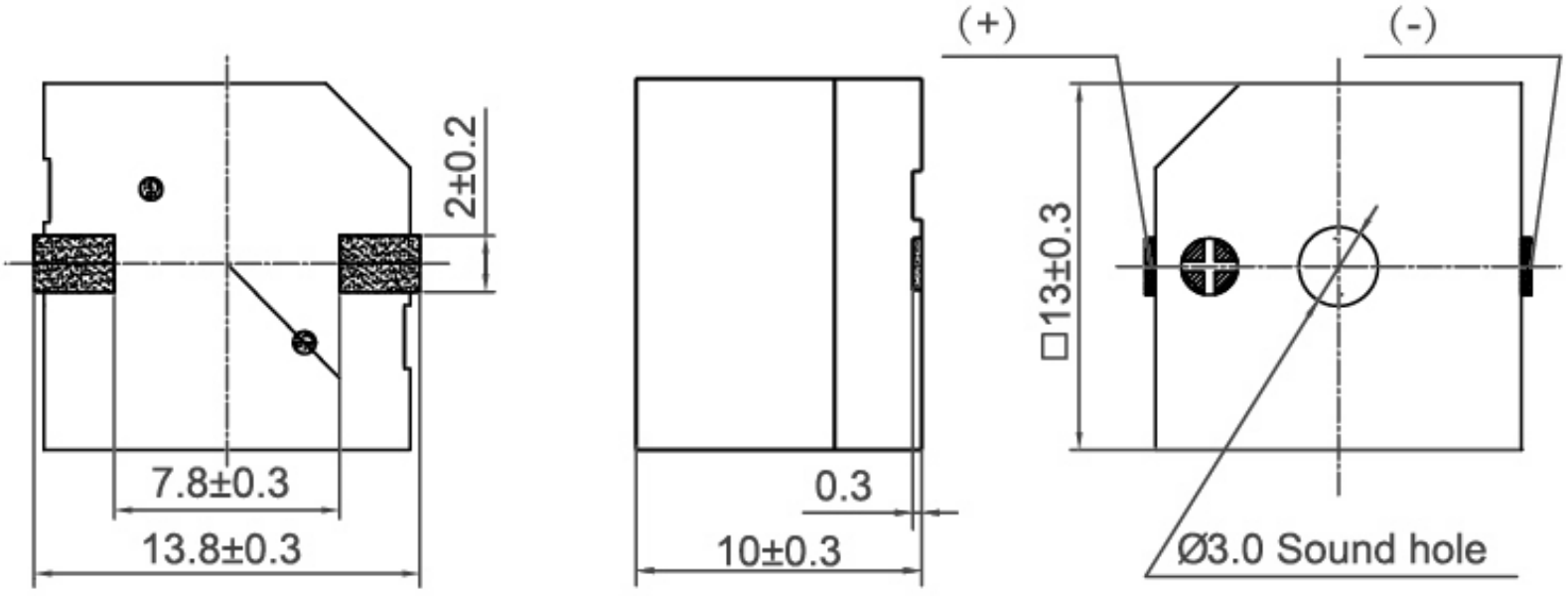
Reliability Testing

Type of Test	Test Specifications
High Temperature Test	120 hours at +105°C
Low Temperature Test	120 hours at -40°C
Humidity Test	40±2°C, 90～95% RH, 120 hours
Temperature Cycle Testing	Total 5 cycles, 1 cycle consisting of -30±2°C, 30 minutes 20±5°C 15 minutes 80±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	Sounder shall 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	Drop from 700mm height onto the surface of 10mm thick wooden board. 2 directions-upper and side of the part are to be applied.

After the test the part shall meet specifications without any degradation in appearance and performance except SPL shall be initial value±10dB or more.

Dimensions **(Tolerance is ±0.5mm unless stated otherwise)**



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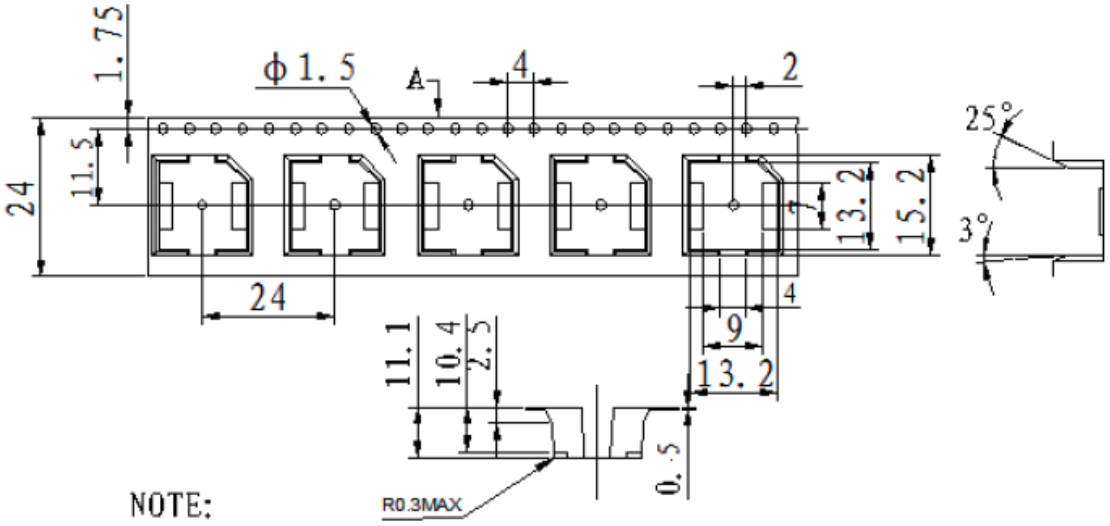
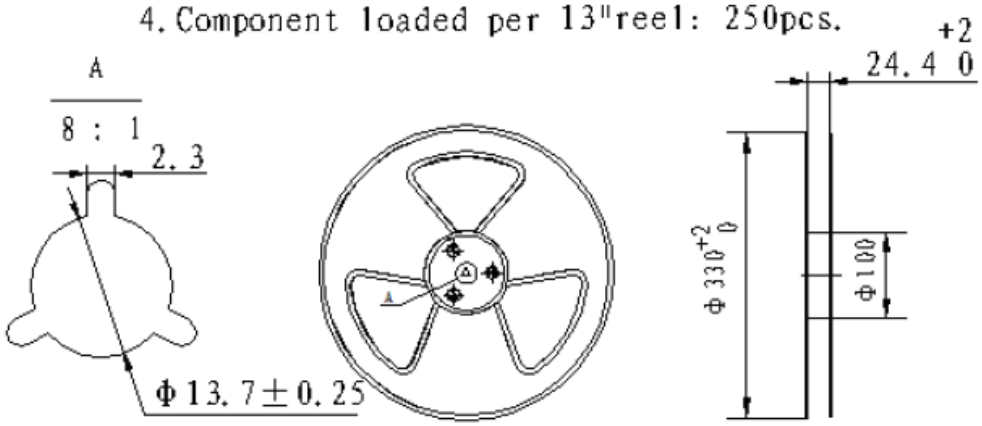
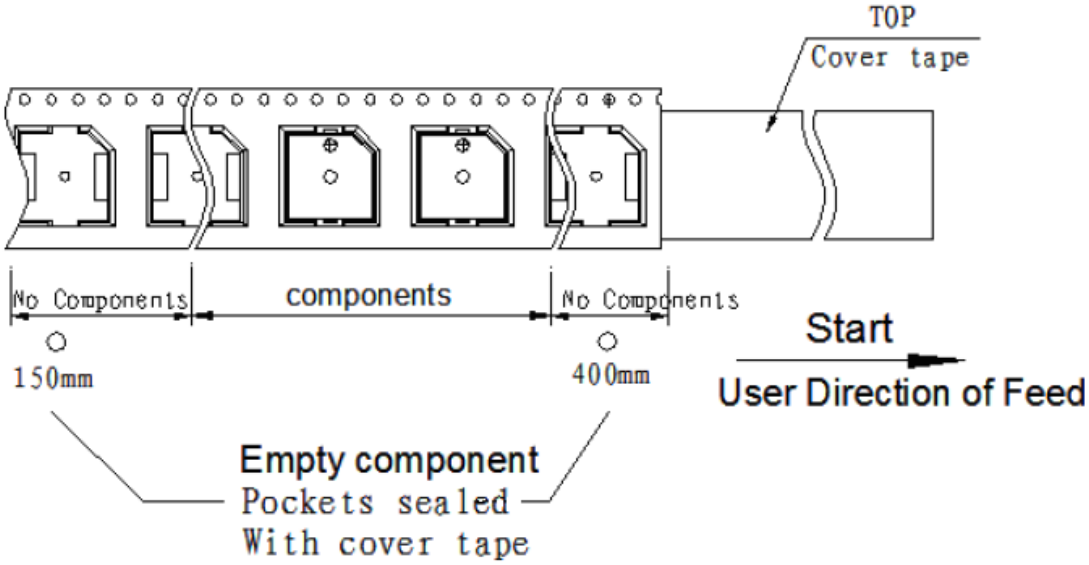
Packaging



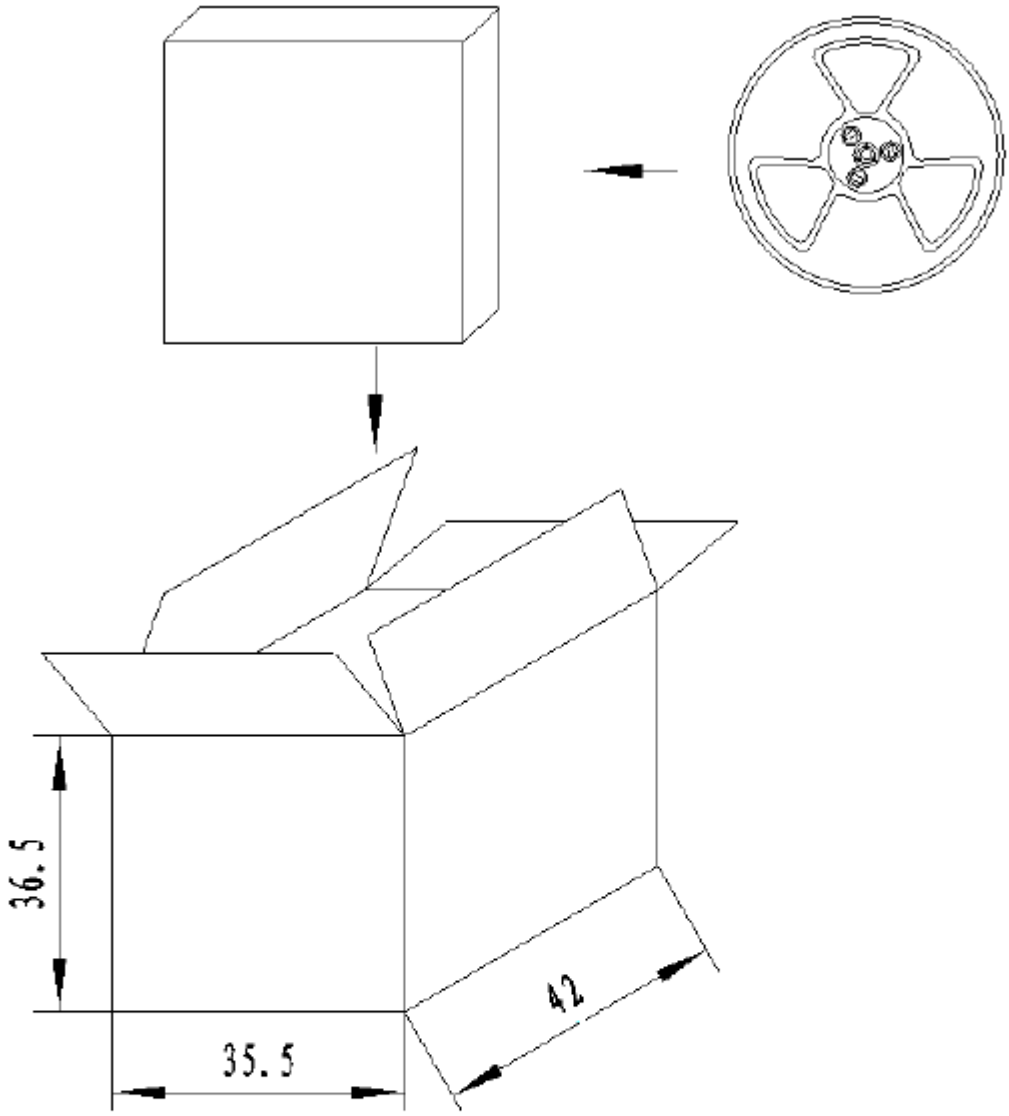
NOTE:

1. 10 sprocket hole pitch cumulative tolerance +/−0. 2mm.
2. All dimensions meet EIA-481-D requirements.
3. Thickness: 0. 4+/−0. 05mm.
4. Component loaded per 13"reel: 250pcs.





Packaging (cont'd)



NOTES:

1.250 PCS per box

2.Total 10 boxes per carton

3.Total 2500 PCS carton

Specifications Revisions

Revision	Description	Date
-	Released from Engineering	3/4/2020

Note:
1. Unless otherwise specified:
   A. All dimensions are in millimeters.
   B. Default tolerances are ±0.5mm and angles are ±3°.
2. Specifications subject to change or withdrawal without notice.