Data Sheet	SMT-1820-T-12V-R

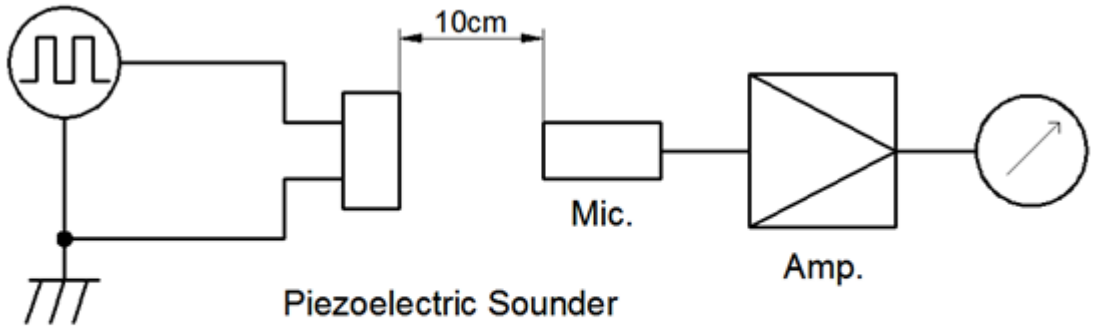
Features:

- 90 dB output @ 10cm with 12Vp-p, 2 kHz input
- Weighs only 1.2 grams and draws very little current
- Wide 1 to 25 Vp-p voltage range

Specifications

Parameters	Values	Units
Rated Voltage	12	Vp-p
Operating Voltage Range	1 ~ 25	Vp-p
Current Draw at Rated Voltage	≤15	mA
Capacitance	30,000 ±30%	pF
Minimum SPL @ 10cm	≥90	dBA
Resonant Frequency	2000 ±500	Hz
Housing Material	LCP	-
Weight	1.2	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 (12Vp-p, 2000Hz, 50% duty cycle square wave with a SPL meter at 10cm)

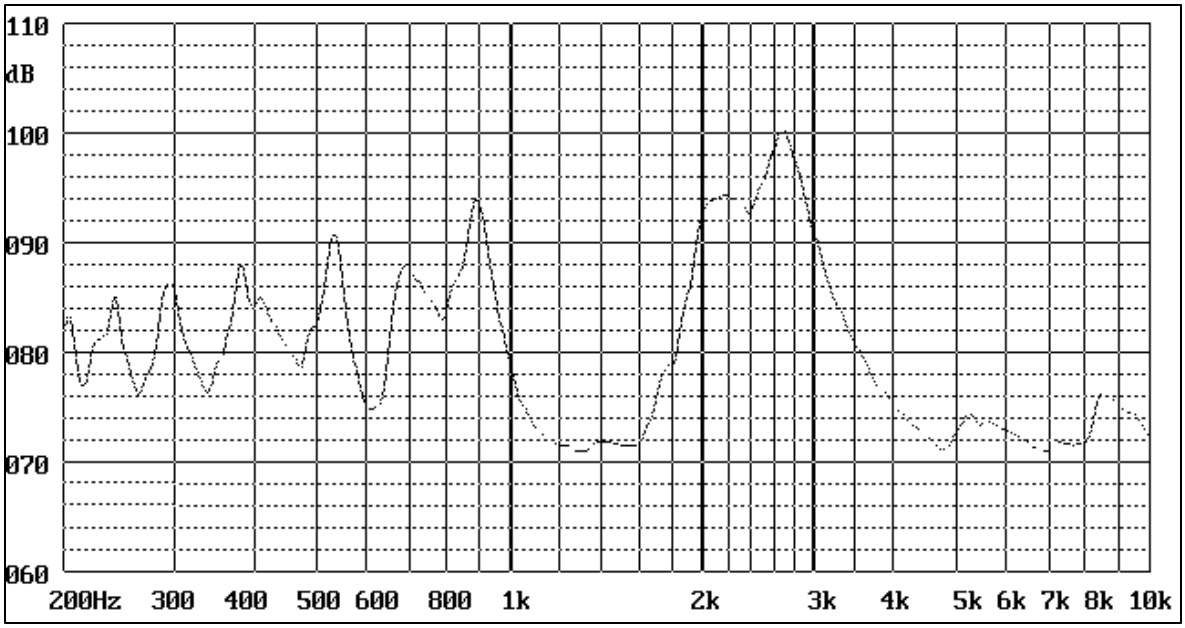


MIC: ND10 Sound Meter or equivalent

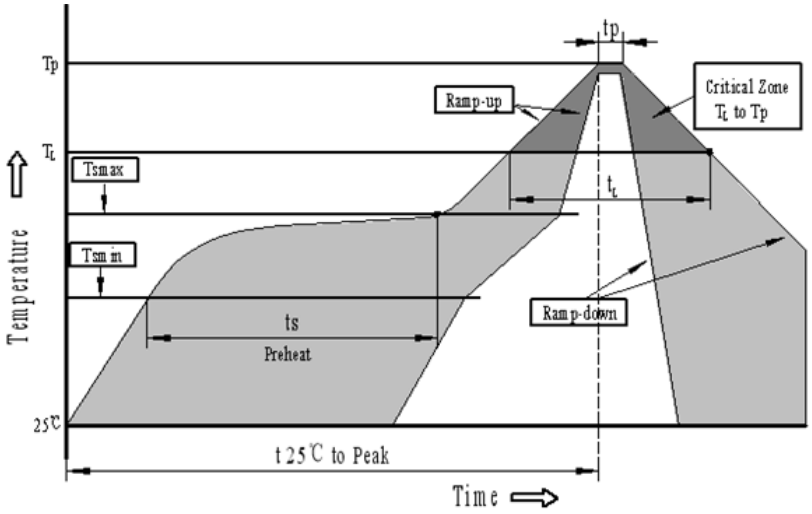
Signal Generator: DF1641D or equivalent

PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925

Typical Frequency Response (12Vp-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)	250℃+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.

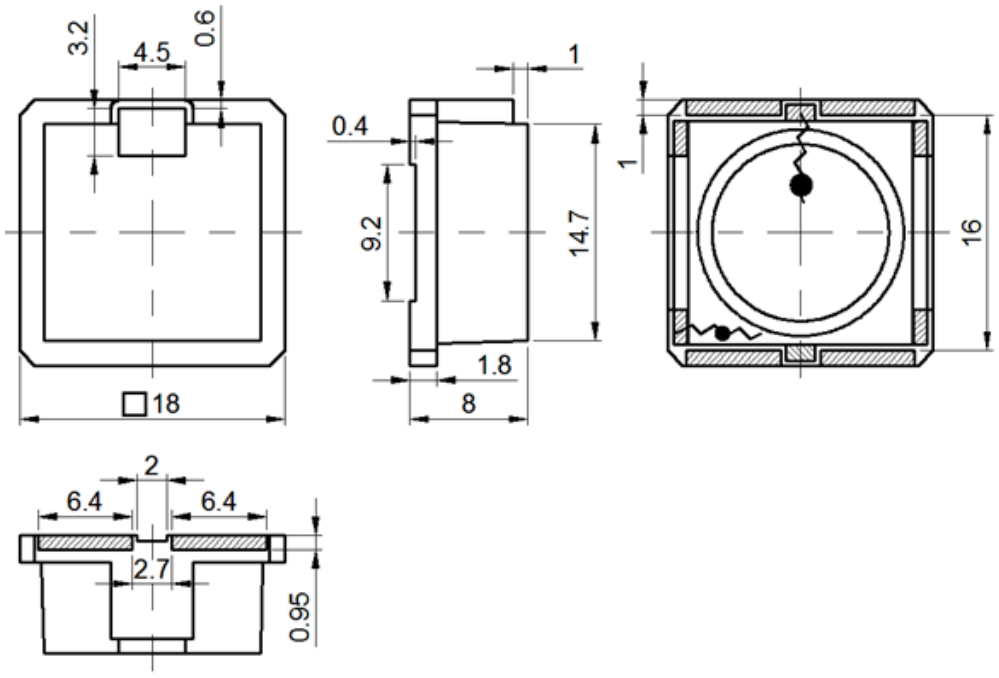
PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925

Reliability Testing

Type of Test	Test Specifications
High Temperature Test	The part shall be capable of withstanding a storage temperature of +120°C for 120 hours
Low Temperature Test	The part shall be capable of withstanding a storage temperature of -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	Sounder shall be measured after being applied a shock (980m/s^2) for each three mutually perpendicular directions to each of 3 times by a half sine wave.
Drop Test	Dropped from a 7m height onto the surface of a 10mm thick wooden board. Applied to the top and side of the part.

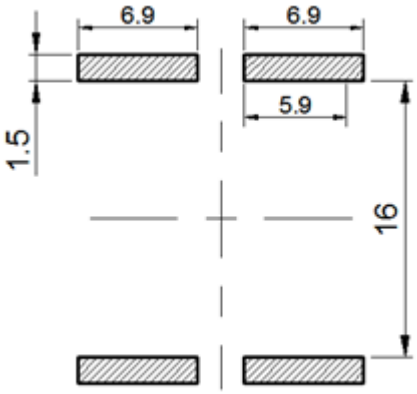
After testing the part shall meet specifications without any degradation in appearance and performance except SPL shall be within ±10dB of initial value.

Dimensions (Tolerance: ±0.5mm Units: mm)



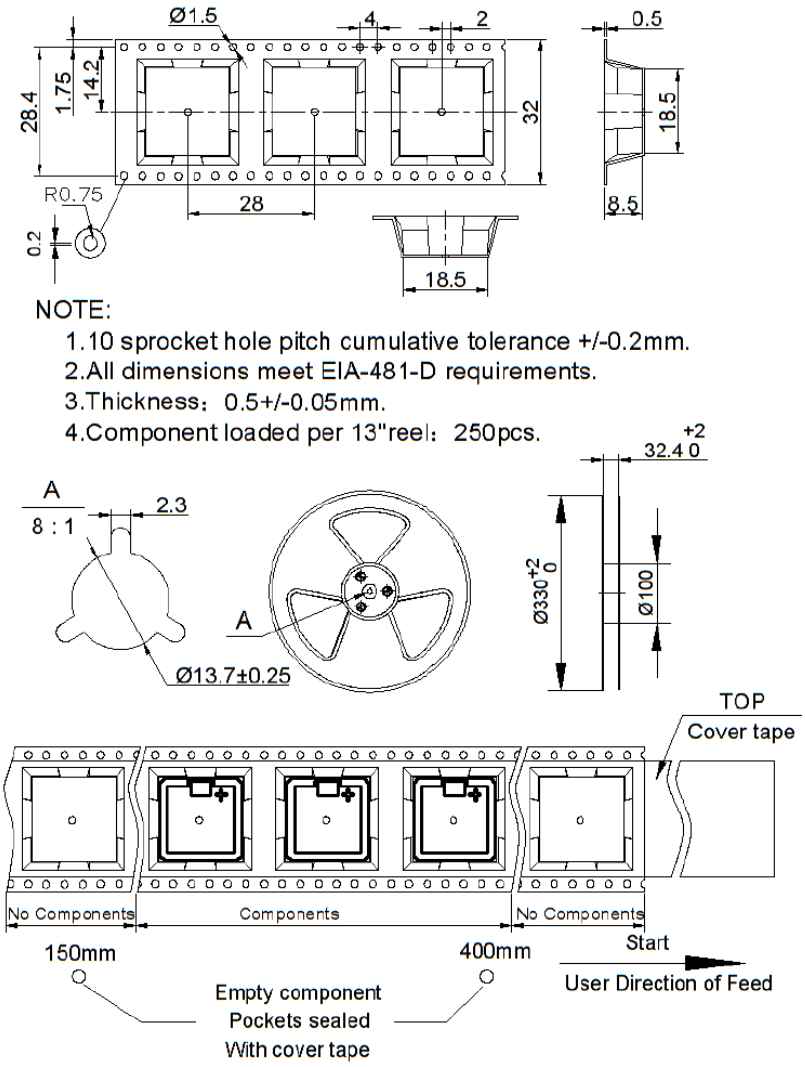
PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925

Suggested Land Pattern*



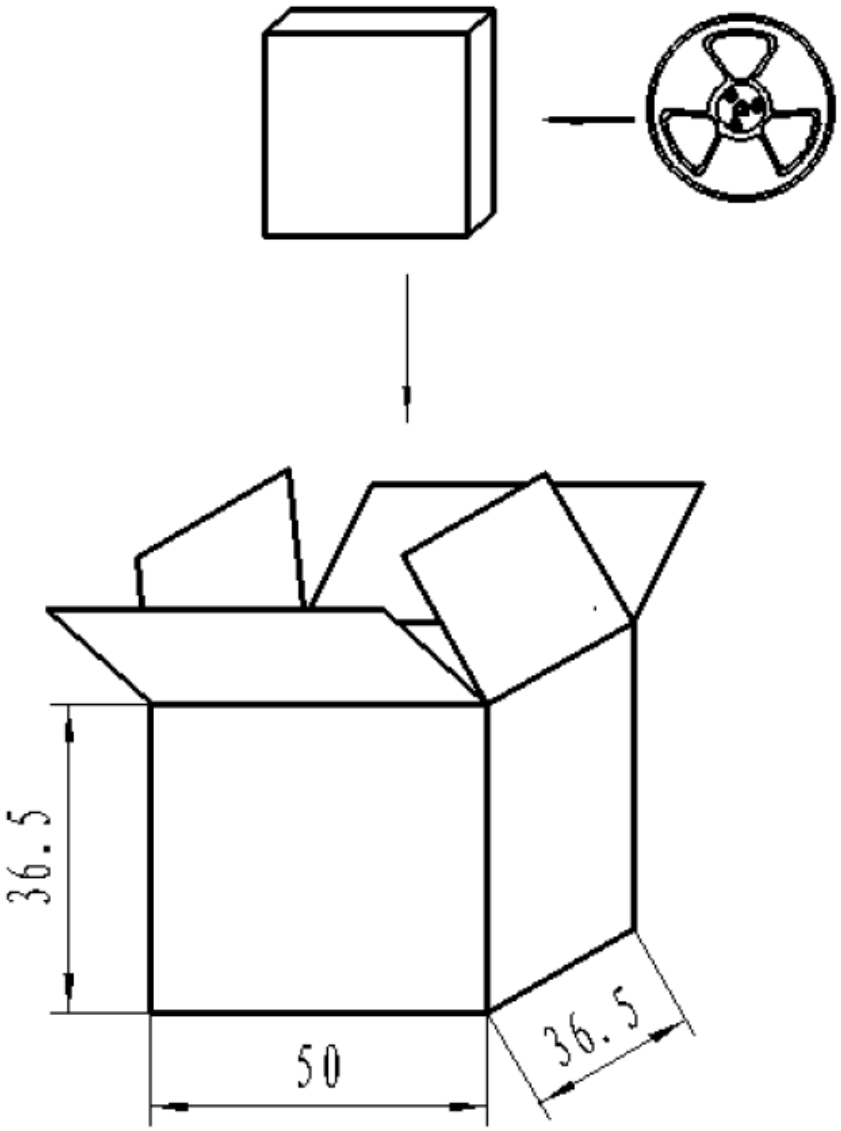
*This land pattern is advisory only and its use or adaptation is entirely voluntary. PUI Audio disclaims all liability of any kind associated with the use, application, or adaptation of this land pattern.

Packaging



PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925

Packaging (cont'd)



NOTES:

1.250PCS per inner box

2.Total 10 inner boxes per carton

3.Total 2500PCS carton

4. Carton Volume: 50*36.5*36.5cm

Specifications Revisions

Revision	Description	Date
-	Released from Engineering	4/1/20

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.

PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925