



PUI audio



Data Sheet

SMT-0824-S-2-R

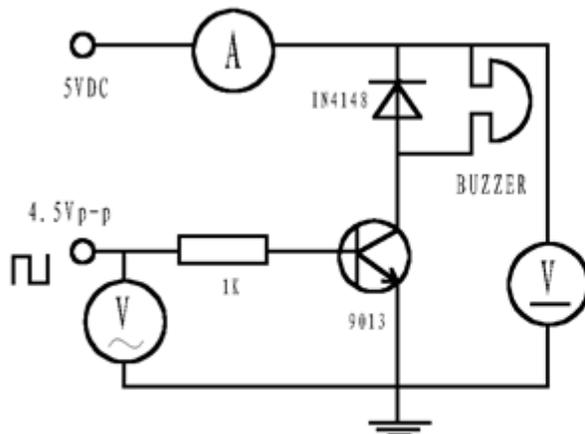
Features:

- 8.5 x 8.5mm Magnetic Transducer
- 5vpk, 2400Hz, 32Ω

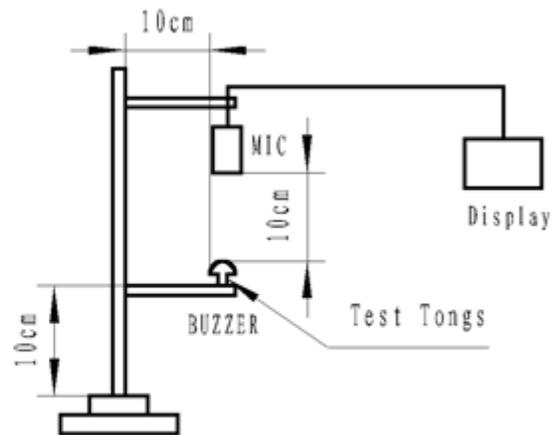
Specifications

Parameters	Values	Units
Rated Voltage	5	V0-p
Operating Voltage Range	3 ~ 7	V0-p
Current Draw at Rated Voltage	100(Max.)	mA
Coil Resistance	32 ± 5	Ohms
Minimum SPL @ 10cm	85	dBA
Resonant Frequency	2400 ± 500	Hz
Housing Material	LCP	-
Weight	0.4	Grams
Acceptable Soldering Methods	Hand Solder, Reflow Solder	See following soldering information
Environmental Compliances	RoHS/REACH	-
Moisture Sensitivity Level (MSL)	1	-
Storage Temperature	-30 ~ +80	°C
Operating Temperature	-20 ~ +70	°C

Measurement Method (5V0-p, 2400Hz, 50% duty cycle square wave with a SPL meter at 10cm)

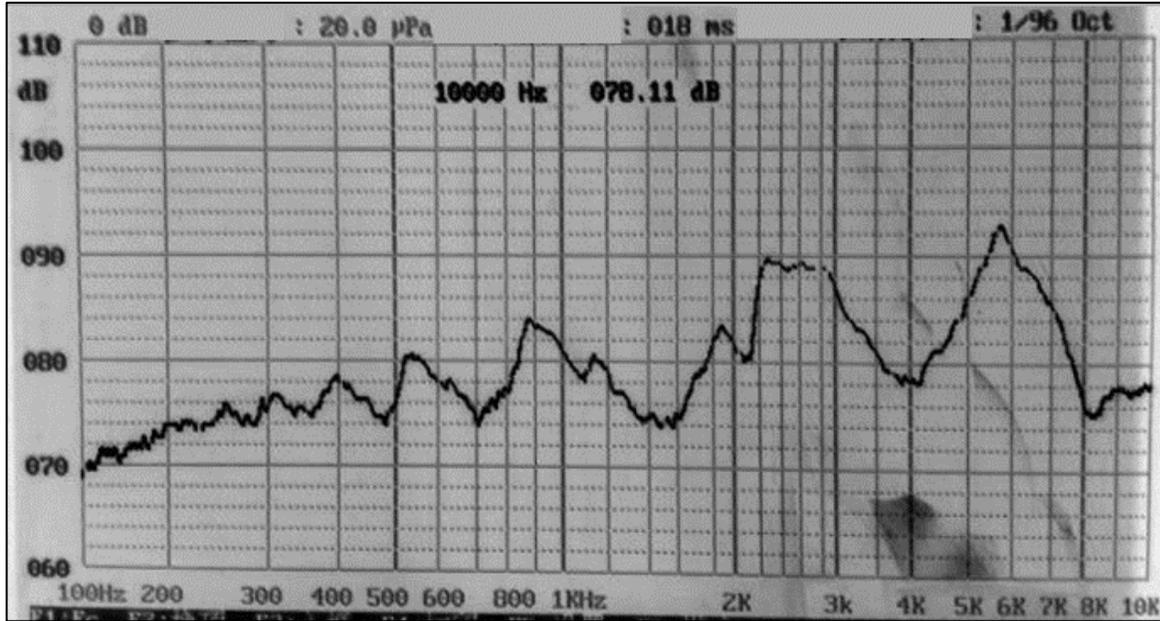


Test Circuit

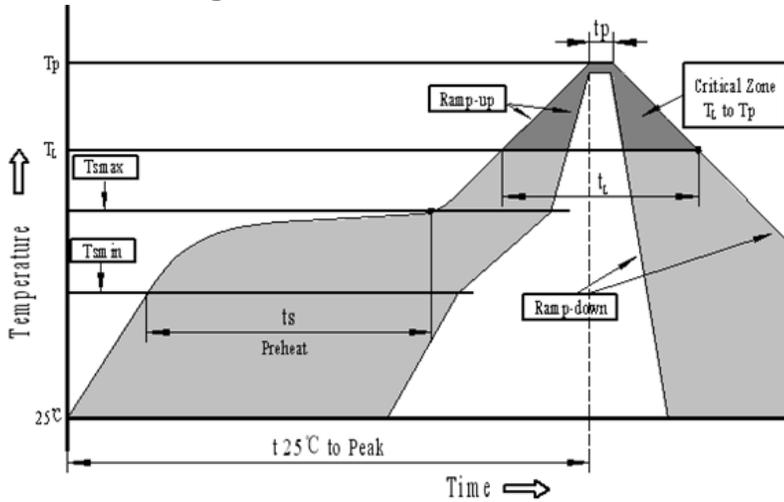


Test Equip

Typical Frequency Response (5 V0-p sine-sweep with microphone spaced at 10cm)



Recommended Soldering Procedure



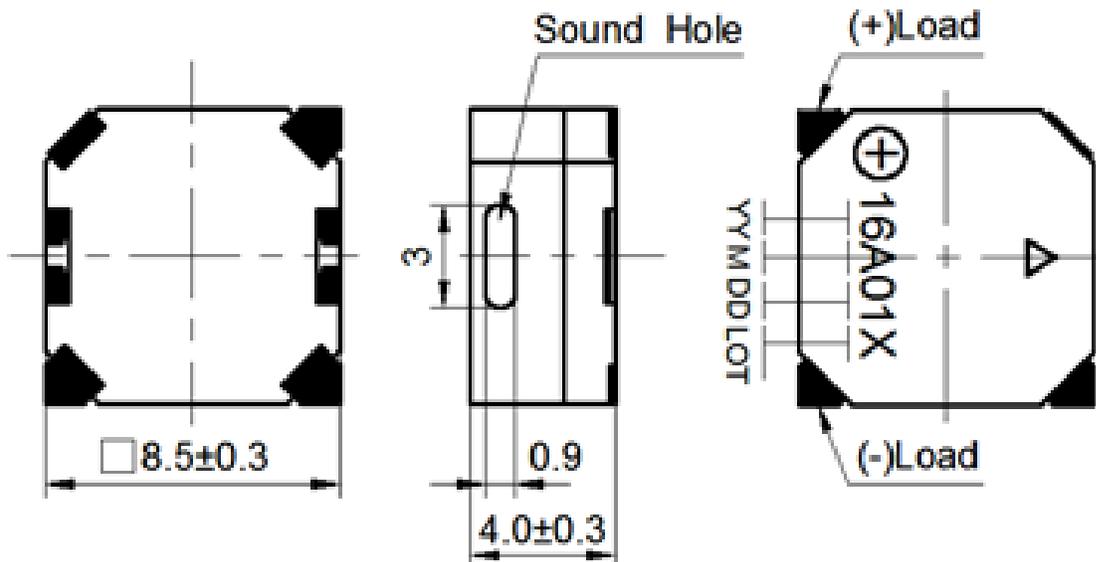
Profile Feature	Pb-Free Assembly
Average ramp-up rate(T _L to T _p)	3°C/second max.
Preheat	
-Temperature Min.(T _{sm})	150°C
-Temperature Min.(T _{sm})	200°C
-Temperature Min.(ts)	60~180 seconds
T _{sm} to T _L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
- Temperature(T _L)	217°C
-Time(T _L)	60~150 seconds
Peak temperature(T _p)	250°C+0/-5°C
Time within 5°C of actual Peak temperature (tp)	6 seconds max.
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

Reliability Testing

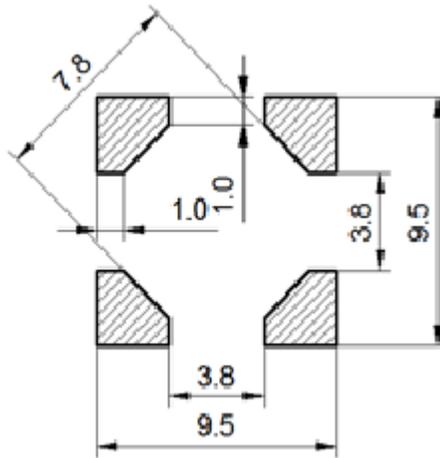
Type of Test	Test Specifications
High Temperature Test	The part shall be capable of withstanding a storage temperature of +80°C for 120 hours
Low Temperature Test	The part shall be capable of withstanding a storage temperature of -30°C for 120 hours
Humidity Test	30±2°C, 90~95% RH, 120 hours
Temperature 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 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 70cm height onto the surface of a 10mm thick wooden board. Applied to the top and side of the part.

After the test 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)

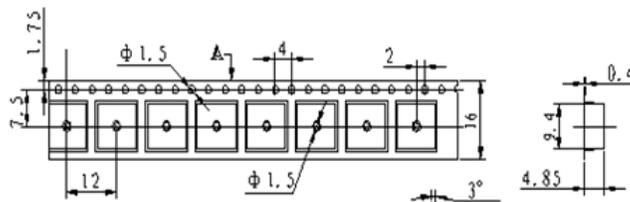


Suggested Land Pattern*

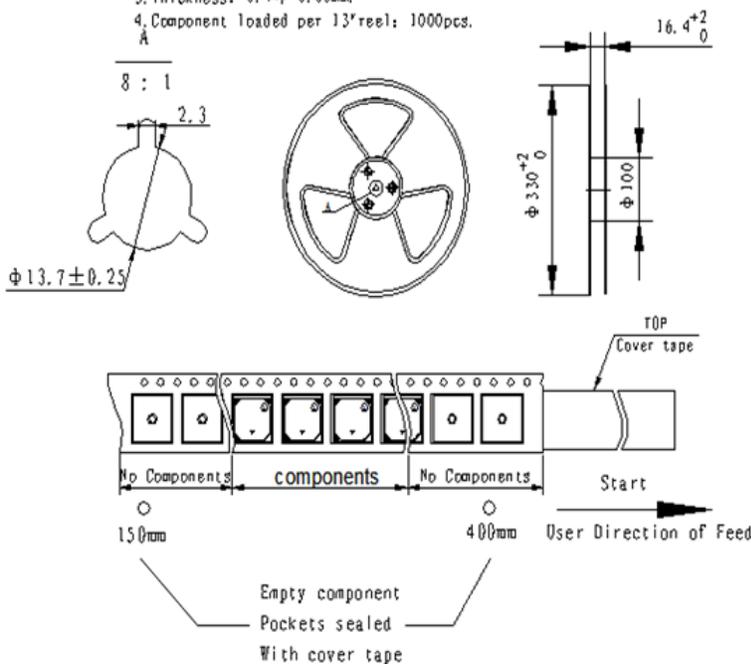


*This land pattern is advisory only and its use or adaptation is entirely voluntary. PUI Audio disclaims all liability of any kind associated with the use, application, or adaptation of this land pattern.

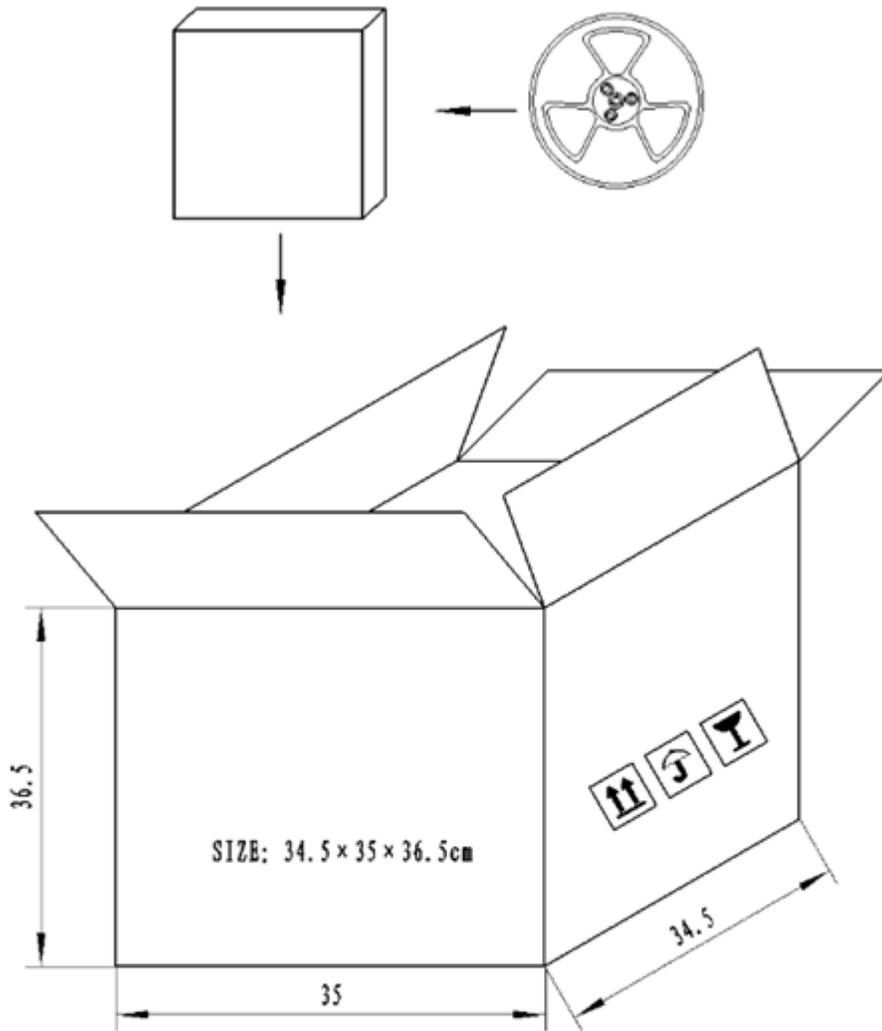
Packaging



- NOTE:
- 1.10 sprocket hole pitch cumulative tolerance $\pm 0.20\text{mm}$.
 2. All dimensions meet EIA-481-D requirements.
 3. Thickness: $0.4 \pm 0.05\text{mm}$.
 4. Component loaded per 13' reel: 1000pcs.



Packaging Cont'd



NOTES:

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

Specifications Revisions

Revision	Description	Date	Approved
-	Released from Engineering	04/01/2020	-
A	Update PUI Logo and Company Footer Details	02/05/2025	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.