



# PUIaudio



Data Sheet

SMT-0821-S-R

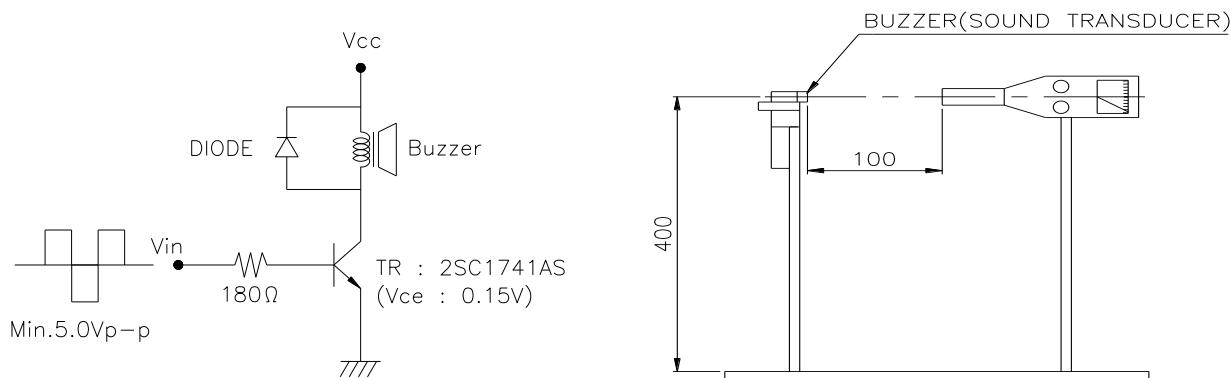
## Features:

- 8.5 x 8.5mm Magnetic Transducer
- 3.6Vpk, 2100Hz, 15Ω

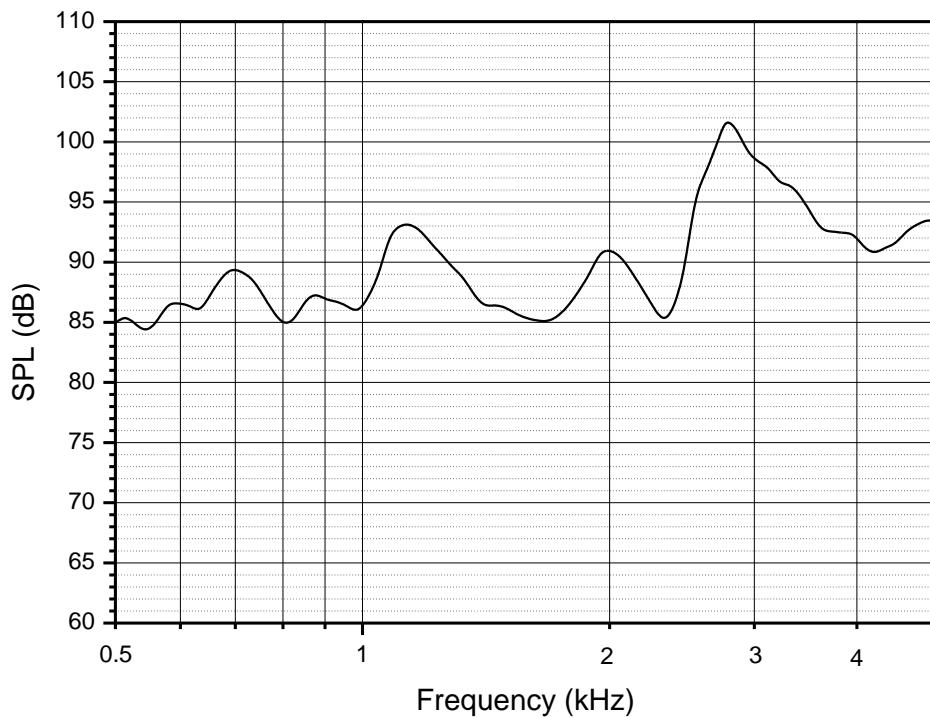
## Specifications

Parameters	Values	Units
Rated Voltage	3.6	V0-pk
Operating Voltage Range	2.5 ~ 4.5	V0-pk
Current Draw at Rated Voltage	90 (Max)	mA
Coil Resistance	15 ± 3	Ohms
Minimum SPL @ 10cm	87	dBA
Resonant Frequency	2100 ± 500	Hz
Housing Material	LCP	-
Terminal Material	Sn Plated Phosphor Bronze	-
Weight	0.42	Grams
Acceptable Soldering Methods	See following pages	-
Environmental Compliances	ROHS/REACH	-
Moisture Sensitivity Level	2	-
Storage Temperature	-40 ~ 85	°C
Operating Temperature	-30 ~ 70	°C

## Measurement Method (Square Wave 3.6Vpk, 2.1kHz @ 10cm)



## Typical Frequency Response (3.6Vpk square wave, d= 10cm)

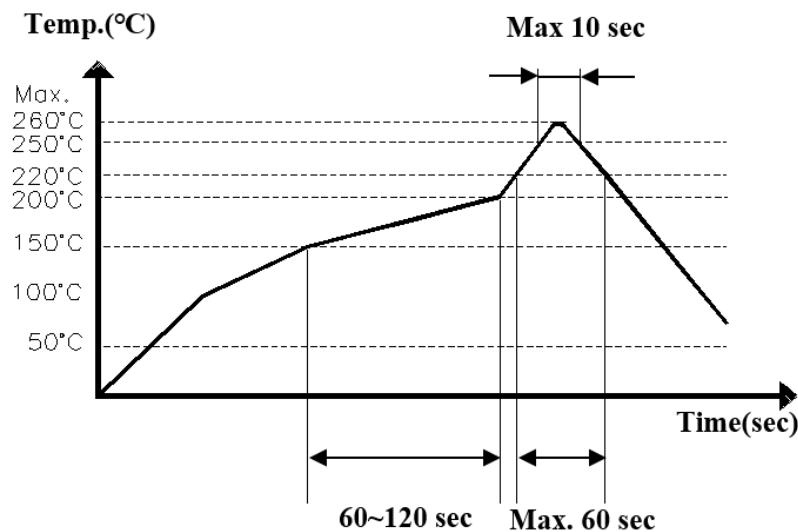


## Recommended Soldering Procedure (Lead-free)

Recommendable reflow soldering condition is as follows.

Note 1; It is requested that reflow soldering should be executed after heat of product goes down to normal temperature.

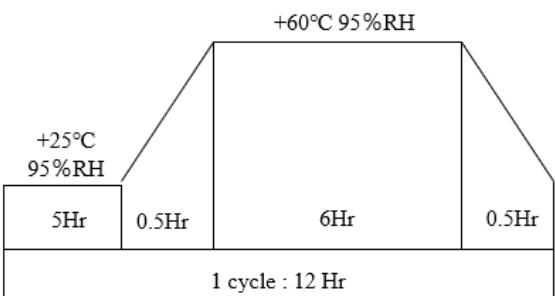
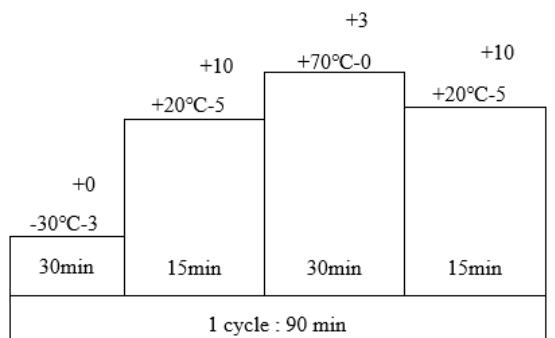
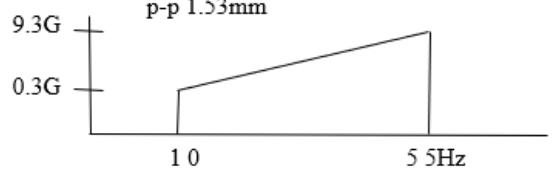
Note 2; Peak reflow temperature of 260°C, with a maximum duration of 60 sec. between 220°C and 260°C



\* Reflow profile of lead-free solder

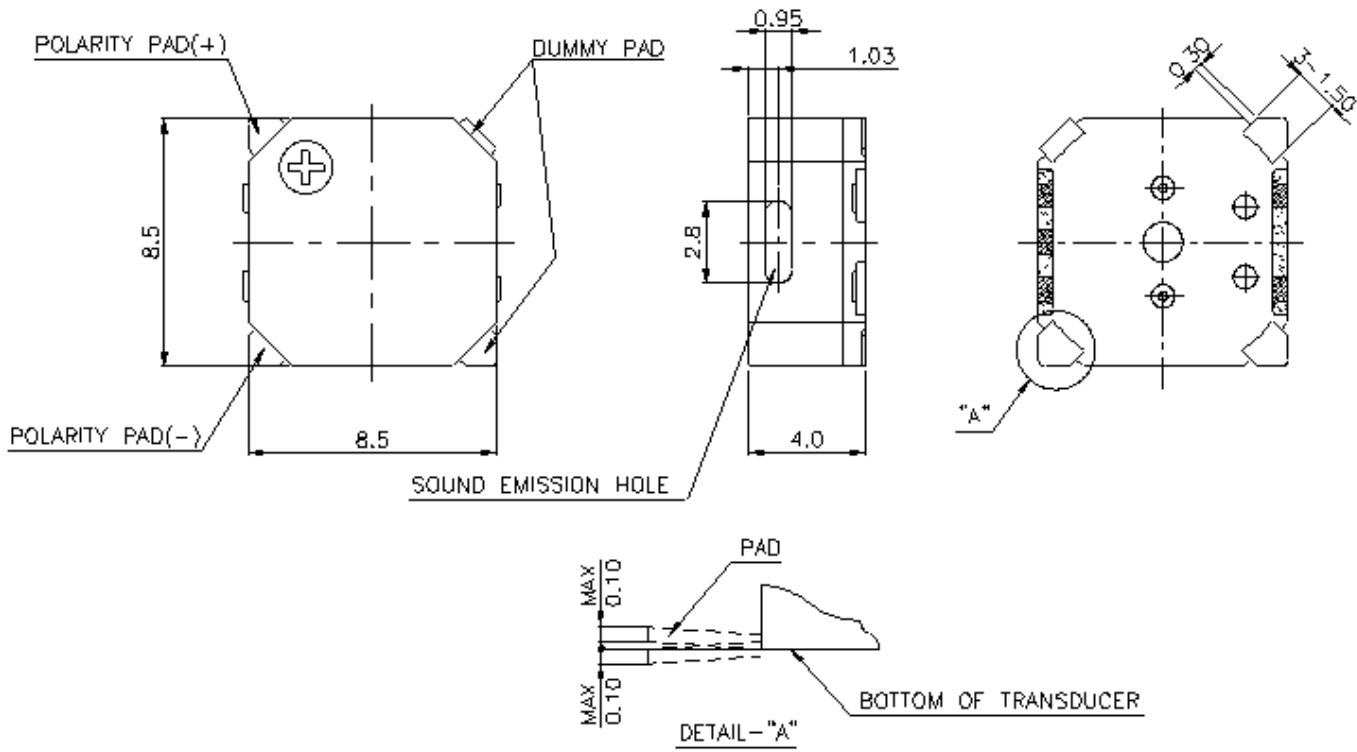
**\*Manual soldering iron temperature 350C, soldering time within 5 seconds.**

## Reliability Testing

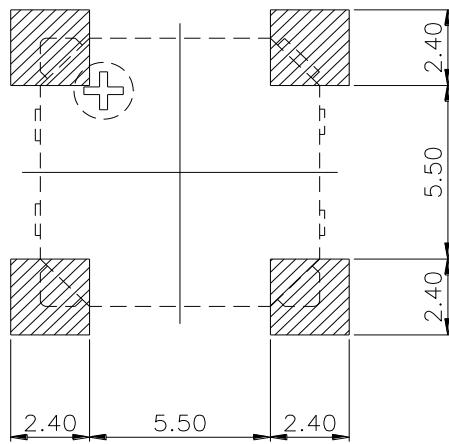
Type of Test	Test Specifications
High Temperature Test	96 hours at 85°C, then expose to room temperature for 2 hours.
Low Temperature Test	96 hours at -40°C, then expose to room temperature for 2 hours.
Humidity Test	 <p>+25°C 95%RH 5Hr 0.5Hr 6Hr 0.5Hr +60°C 95%RH 1 cycle : 12 Hr</p> <p>Make this test for 10 cycles without applying power, then expose to the room temperature for 2 hours.</p>
Temperature Cycle Testing	 <p>-30°C-3 30min 15min 30min 15min +0 +10 +70°C-0 +10 +20°C-5 +20°C-5 +3 1 cycle : 90 min</p> <p>Make this test for 5 cycles without applying power, then expose to room temperature for 2 hours.</p>
Vibration Test	 <p>9.3G 0.3G 1 0 5 5Hz p-p 1.53mm</p> <p>Make this test for the directions of X, Y and Z. for 2 hours each (total 6 hours).</p>

**After test, no significant change both in appearance and structure should be observed, and SPL variation should be within -5dB.**

## Dimensions

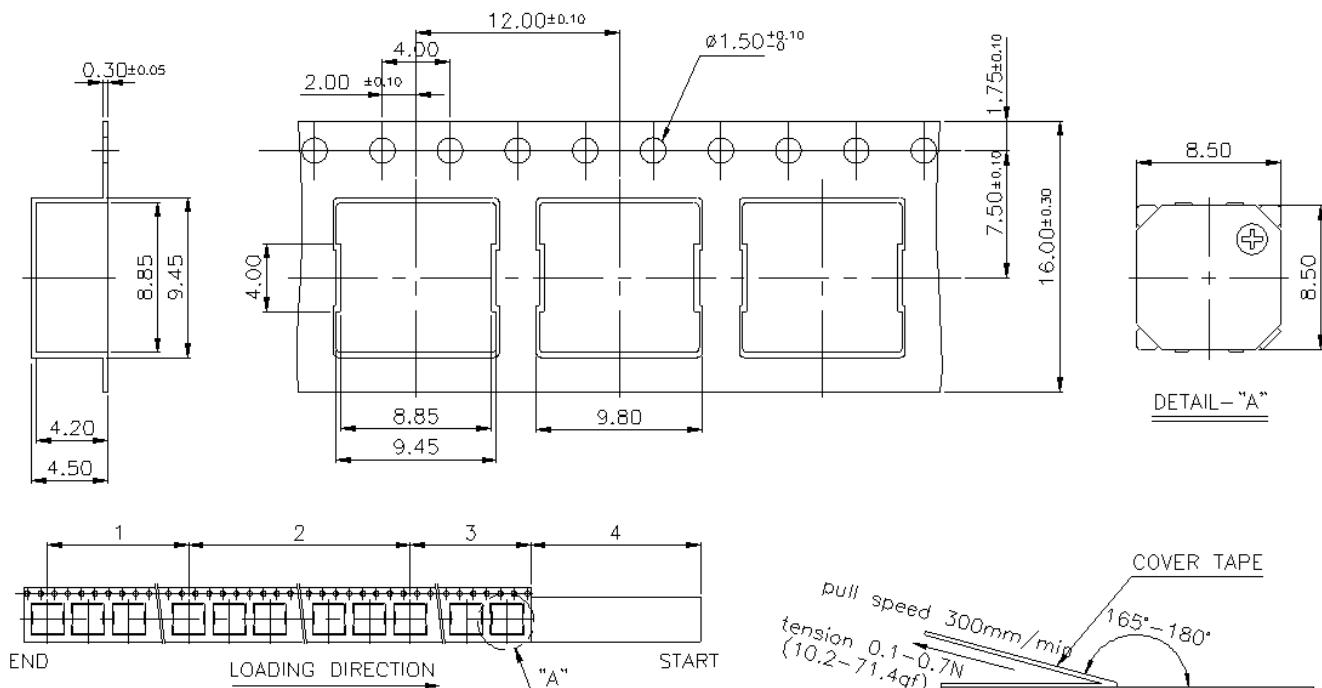
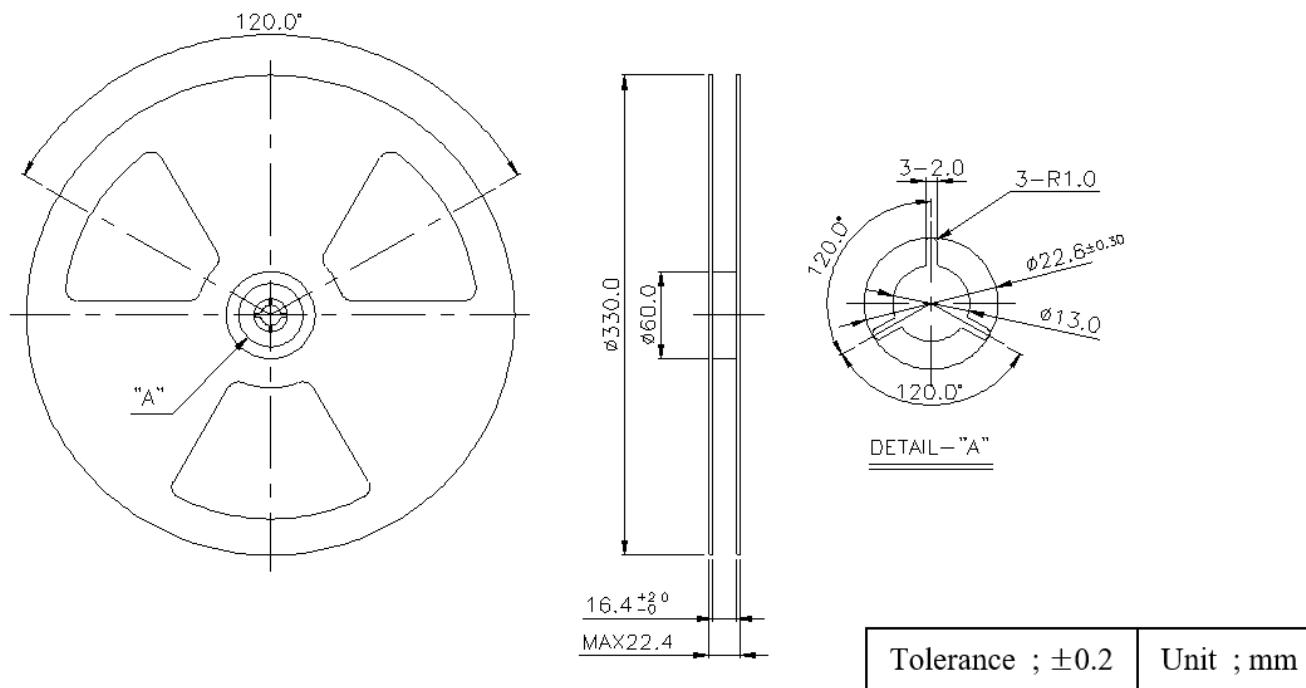


## Suggested Land Pattern\* *(for surface mount parts)*

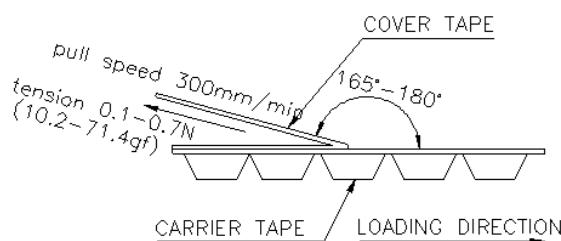


\*This land pattern is advisory only and its use or adaptation is entirely voluntary. PUI Audio disclaims all liability of any kind associated with the use, application, or adaptation of this land pattern.

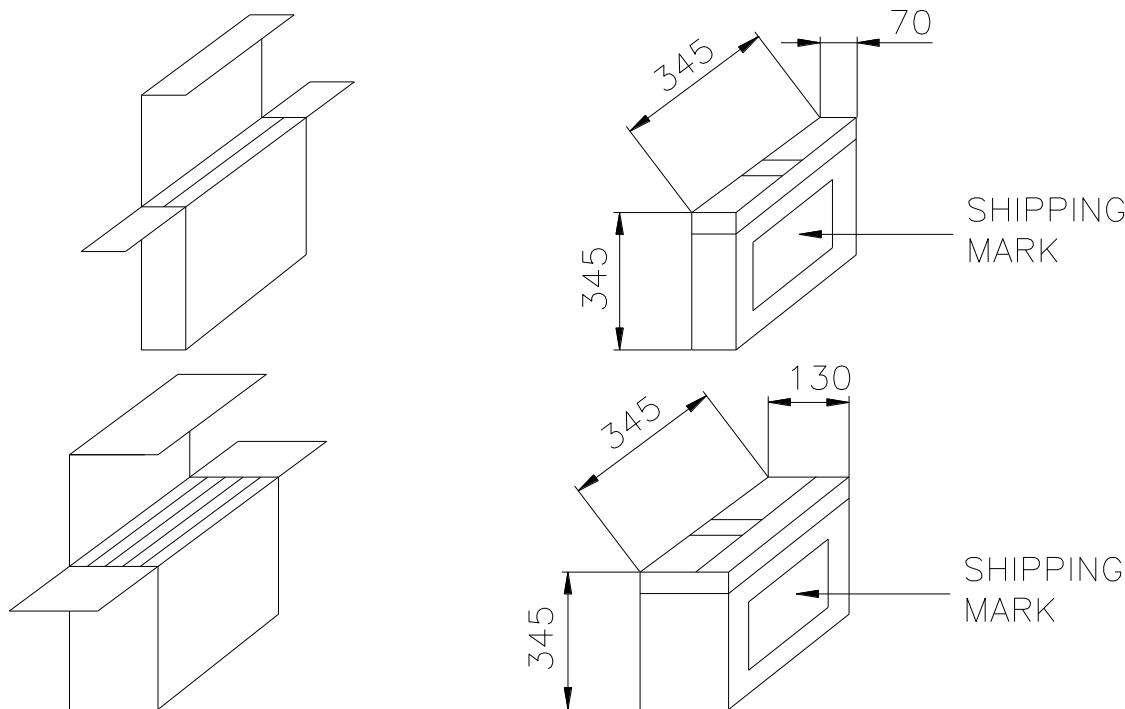
## Packaging



1. BARE EMBOSSED AREA : 400mm OVER(35PCS OVER)
2. CHIP MOUNT AREA : 1,000PCS
3. BARE EMBOSSED AREA : 400mmOVER(35PCS OVER)
4. LEADER AREA : 100mm OVER



1,000 PCS per reel by using the tapping M/C  
2rolls or 5rolls per 1 double(thick) carton box packed by polypropylene tape.



#### Specifications Revisions

Revision	Description	Date	Approved
-	Released from Engineering	09/16/2005	-
A	Revised to inventor 3-D drawing template	07/12/2013	ML
B	Updated Spec Format, Add details for Reliability, Packaging, etc. Add MSL 2	05/20/2024	ML

Note:

1. Unless otherwise specified:
  - A. All dimensions are in millimeters.
  - B. Default tolerances are  $\pm 0.5$ mm and angles are  $\pm 3^\circ$ .
2. Specifications subject to change or withdrawal without notice.