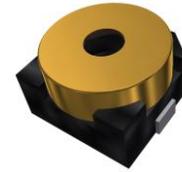




PUIaudio



Data Sheet

SMT-0340-T-R

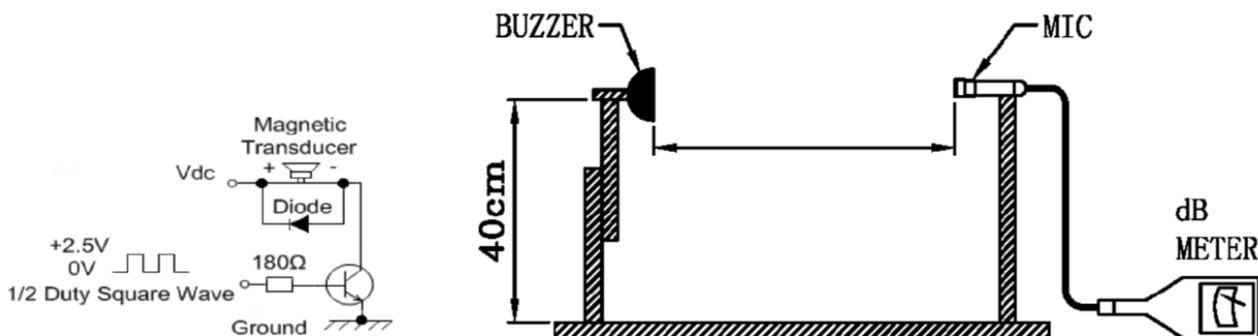
PUI Audio introduces the **SMT-0340-T-R**, the smallest surface mount transducer ever created! This tiny device is less than 1/6th the size of a dime and is perfect for generating audible notifications on wearables and other small electronics.

Specifications

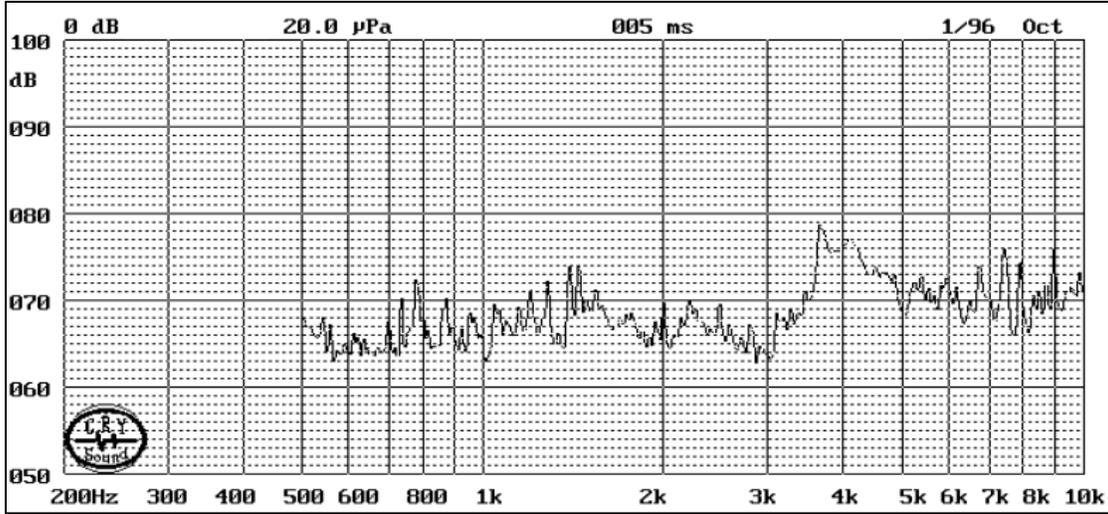
Parameters	Values	Units
Rated Voltage	3	V0-p
Operating Voltage Range	2 ~ 4	V0-p
Current Draw at Rated Voltage*	≤120	mA
Coil Resistance	12 ± 3	Ohms
Minimum SPL @ 5cm*	72	dBA
Resonant Frequency	4,000 ± 500	Hz
Housing Material	LCP	-
Terminal Material	Tin-Plated Brass	-
Moisture Sensitivity Level (MSL)	2A	-
Weight	0.1	Grams
Acceptable Soldering Methods	Hand Solder @ 350C for 5s, Reflow Solder	See page 3 for reflow solder information
Environmental Compliances	RoHS/REACH	-
Operating Temperature	-20 ~ +70	°C
Storage Temperature	-30 ~ +80	°C

*At rated voltage with 50% duty cycle 4 kHz positive biased square-wave

Measurement Method (4kHz square wave, 5cm)



Typical Frequency Response (4Vpk square wave, 5cm)

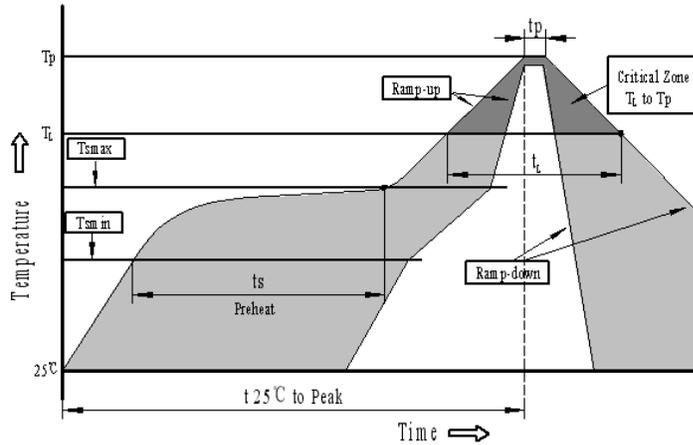


Reliability Testing

Type of Test	Test Specifications
High Temperature Test	The part shall be capable of withstanding a storage temperature of +80°C for 96 hours
Low Temperature Test	The part shall be capable of withstanding a storage temperature of -30°C for 96 hours
Humidity Test	40±2°C, 90~95% RH, 96 hours, then allowed to rest at room temperature for two hours
Temperature Cycle Testing	<p>Total 5 cycles of the following cycle</p>
Vibration Test	Vibration of 1.5mm amplitude at 10-50Hz in XYZ directions for 2 hours each.
Drop Test	Drop from a height of 75cm onto 4 cm thick wood board six times.

After each test, part shall meet specifications with an SPL variance of no more than ±10 dB

Recommended Reflow Soldering Procedure

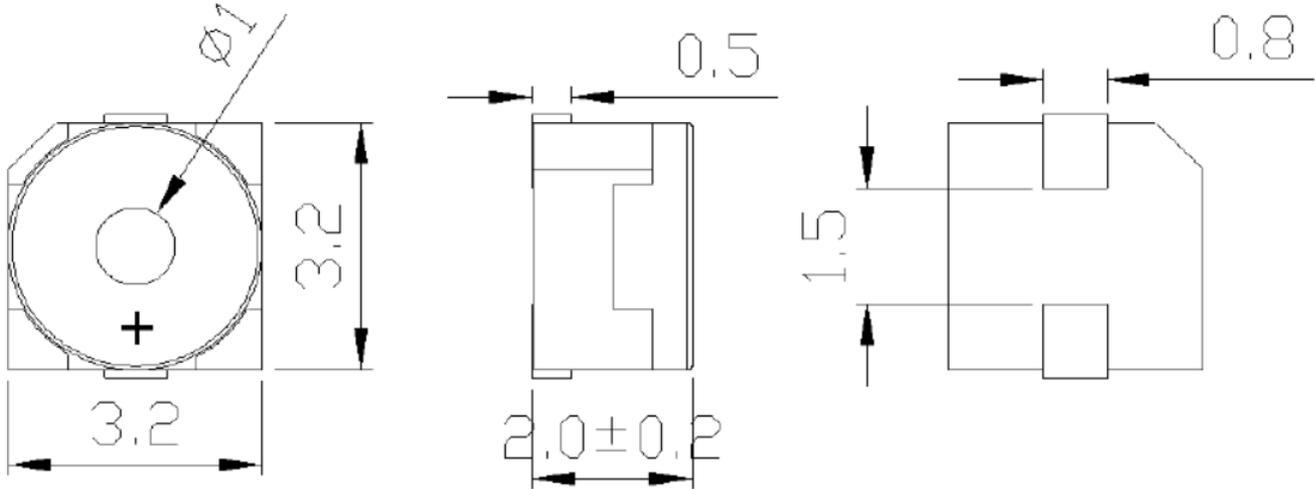


Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_p)	3°C/second max.
Preheat	
-Temperature Min. (T_{smin})	150°C
-Temperature Min. (T_{smax})	200°C
-Temperature Min. (T_s)	60~180 seconds
T_{smax} to T_L	
-Ramp-up Rate	3°C/second max.
Reflow	
- Temperature (T_L)	217°C
-Time (T_L)	60~150 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.

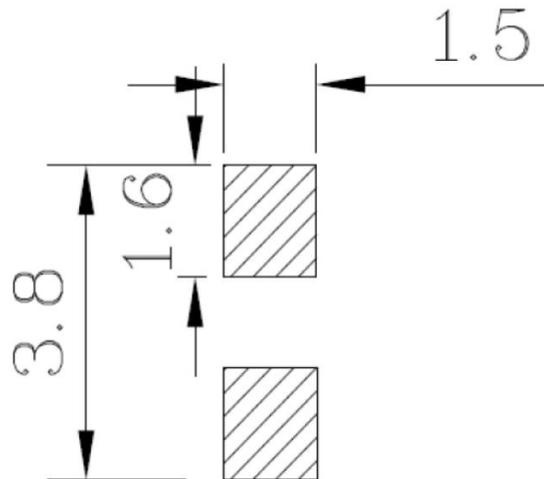
***Washing Not Allowed.**

****Manual Soldering Temperature 350C within 5 seconds.**

Dimensions

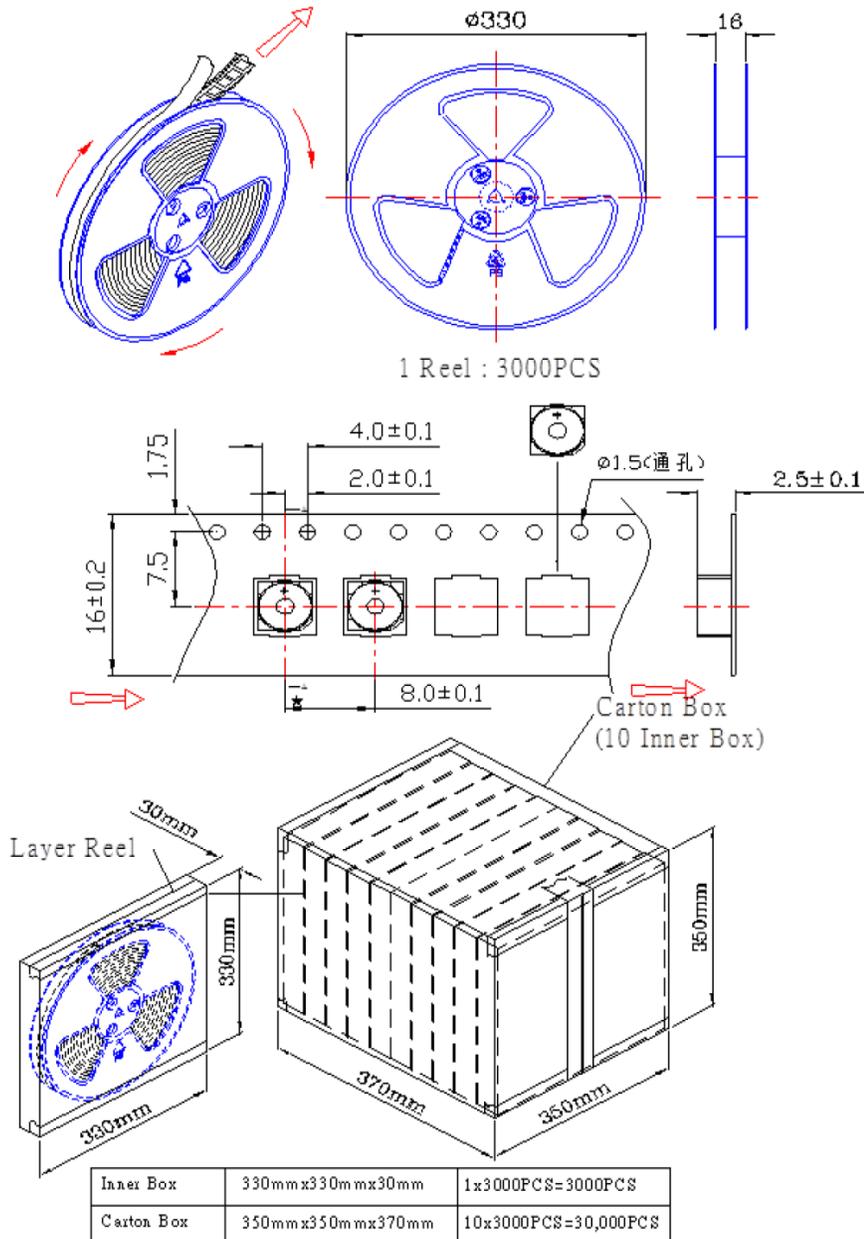


Suggested Land Pattern*



*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



Specifications Revisions

Revision	Description	Date	Approved
A	Released from Engineering	03/10/2020	-
B	Update Footer Information, Add Details for Measurement Method and MSL 2A	12/02/2024	ML

Note:

- Unless otherwise specified:
 - All dimensions are in millimeters.
 - Default tolerances are $\pm 0.5\text{mm}$ and angles are $\pm 3^\circ$.
- Specifications or changes may not be made without prior customer notification and approval.