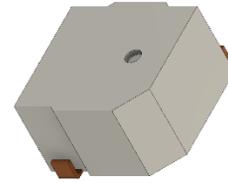




PUIaudio



Data Sheet

SMT-0540-T-10-R

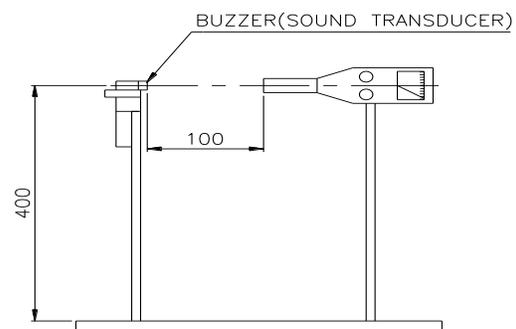
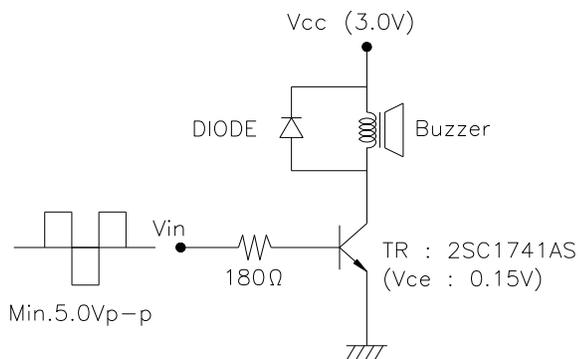
Features:

- 5mm x 5mm Magnetic Transducer
- 3Vpk, 4kHz

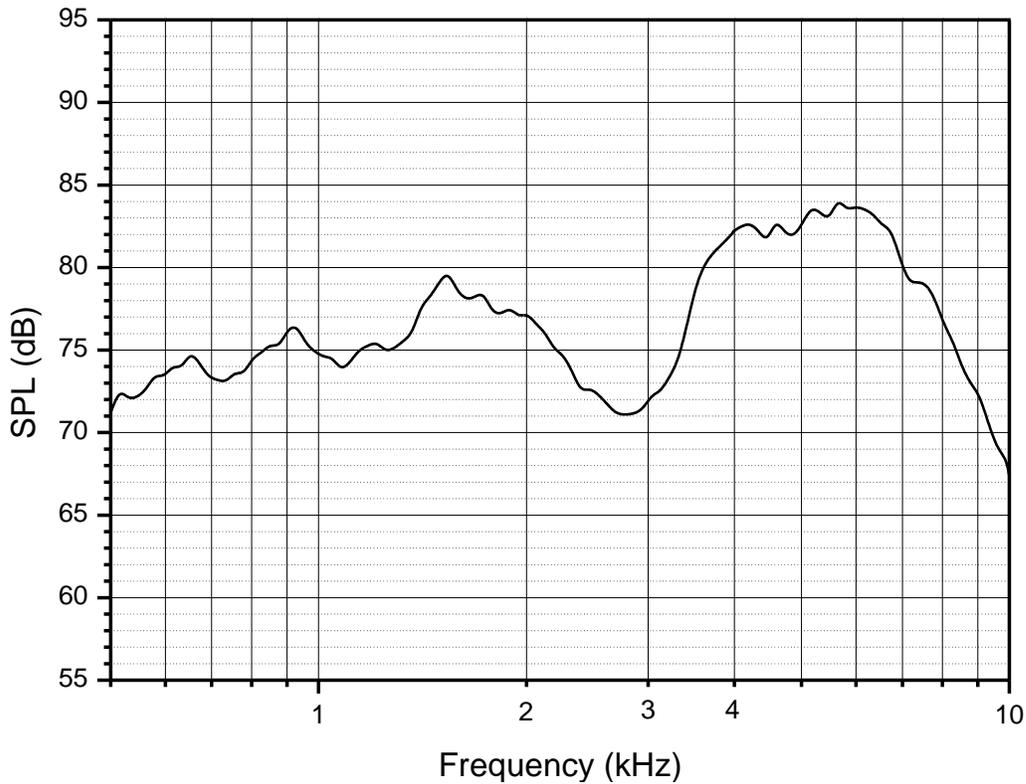
Specifications

Parameters	Values	Units
Rated Voltage	3	V0-pk
Operating Voltage Range	2 ~ 4	V0-pk
Current Draw at Rated Voltage	45 (Max.)	mA
Coil Resistance	35 ± 4.5	Ohms
Minimum SPL @ 10cm	78	dBA
Resonant Frequency	4,000	Hz
Weight	0.16	Grams
Moisture Sensitivity Level (MSL)	2	-
Environmental Compliances	RoHS/REACH	-
Storage Temperature	-40 ~ 85	°C
Operating Temperature	-40 ~ 85	°C

Measurement Method (3Vpk, 4kHz @ 10cm distance)

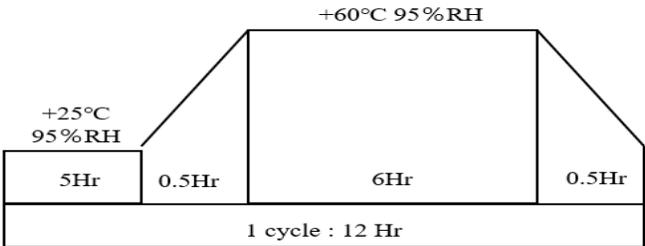
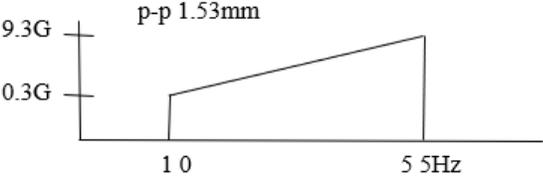


Typical Frequency Response (3Vpk, 10cm)



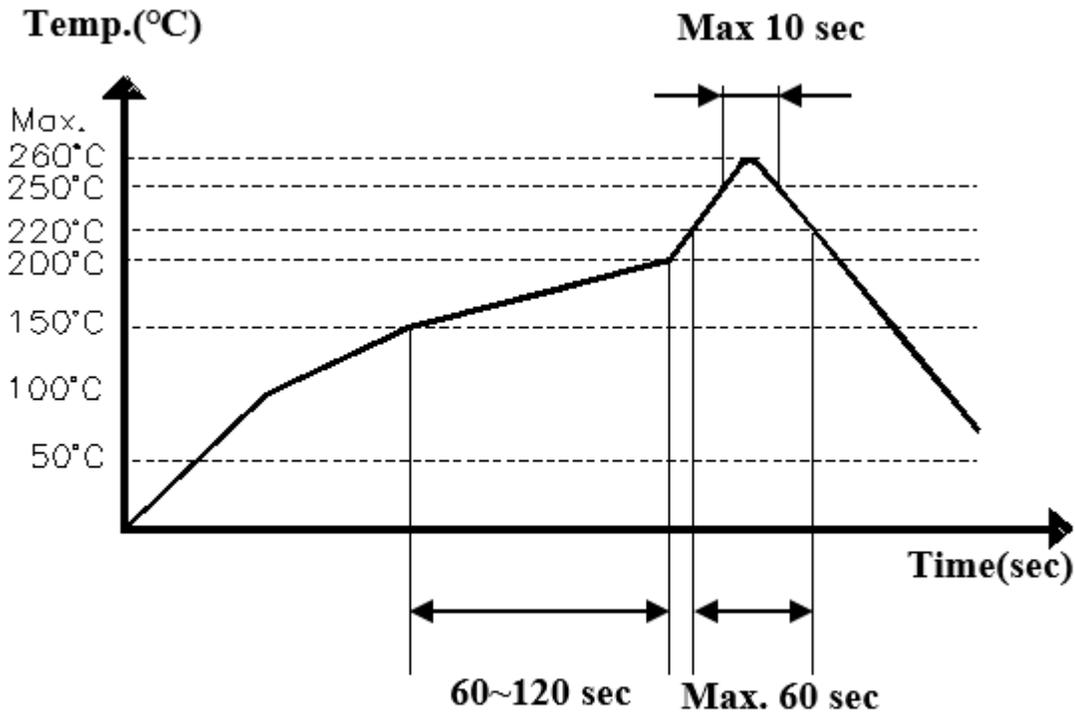
Reliability Testing

Type of Test	Test Specifications
High Temperature Test	96 hours at 85°C. Rest at room temperature for 2 hours before retest.
Low Temperature Test	96 hours at -40°C. Rest at room temperature for 2 hours before retest.
Humidity Test	12 hours at 60°C with relative humidity at 95%. Rest at room temperature for 2 hours before retest.
Temperature Cycle Testing	<p>Run the test for 5 cycles, with each cycle consisting of:</p> <p>Rest at room temperature for 2 hours before retest.</p>

<p>Humidity Cycle Testing</p>	 <p>The diagram shows a humidity cycle with four stages: 5Hr at +25°C 95%RH, 0.5Hr ramp up, 6Hr at +60°C 95%RH, and 0.5Hr ramp down. A bracket below indicates '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>
<p>Vibration Test</p>	 <p>The diagram shows a sine wave with a peak-to-peak amplitude of 1.53mm. The y-axis has markers at 0.3G and 9.3G. The x-axis has markers at 10 and 5 Hz.</p> <p>Make this test for the directions of X, Y and Z. for 2 hours each (total 6 hours).</p>
<p>Drop Test</p>	<p>Fix transducer on PCB with polyester film(t=0.2mm, gross weight: 100g) and the height of 120cm on each of the six surfaces 3 times each.</p>

After tests, part shall be within $\pm 5\text{dB}$ of stated value.

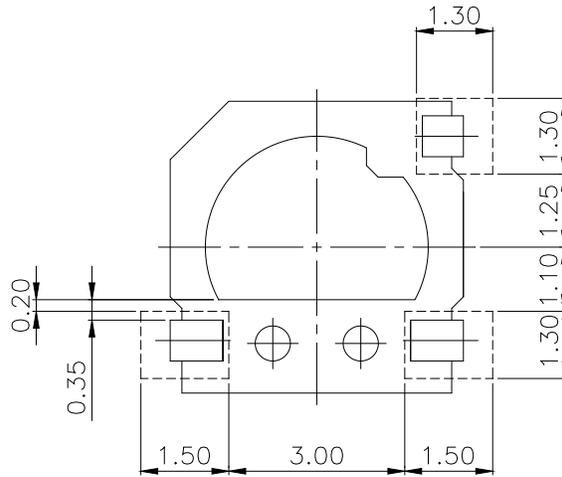
Recommended Reflow Profile



* Reflow profile of lead-free solder

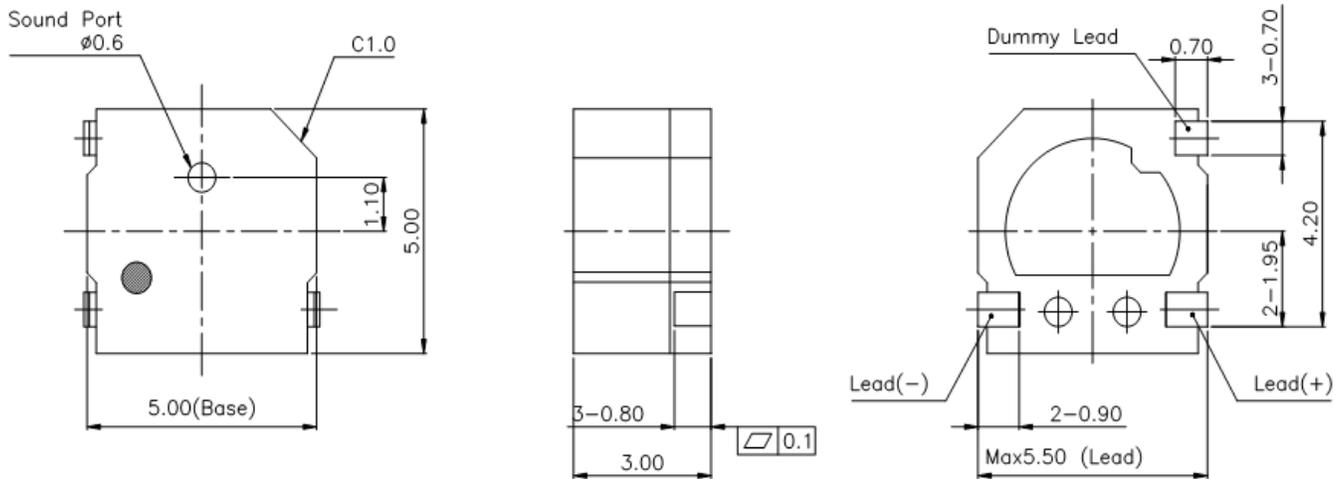
*Manual Solder Iron Temperature 350C, Solder Time 2-3 seconds per terminal.

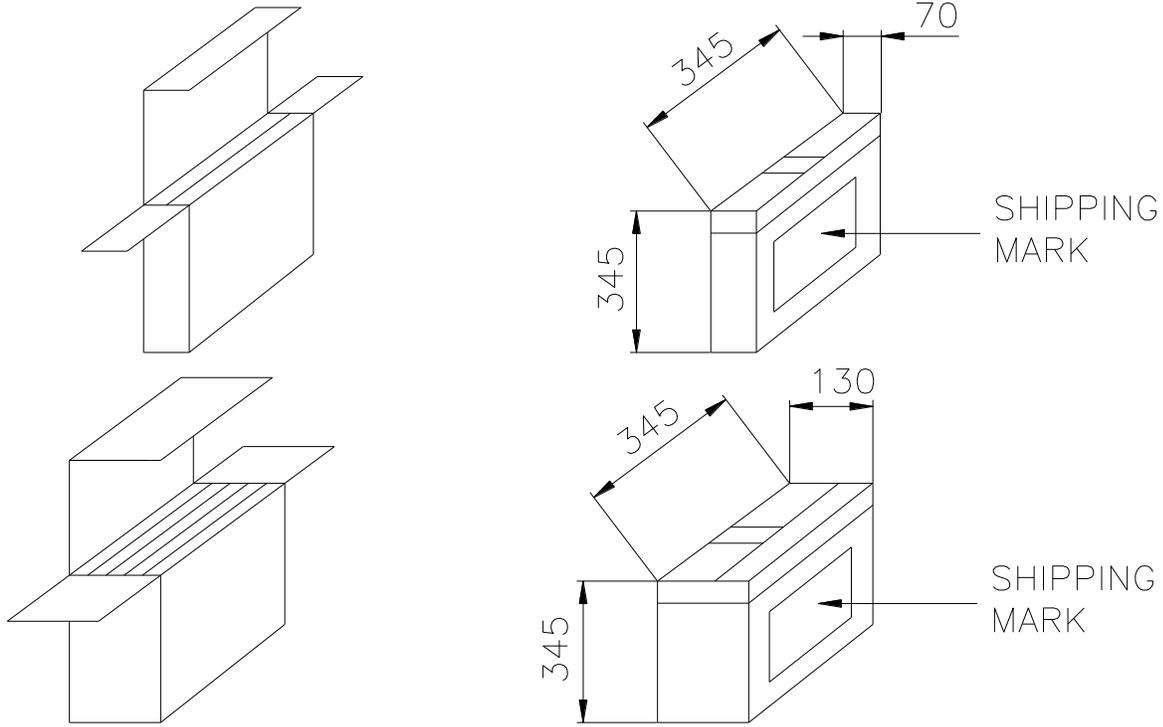
Recommended Land Pattern



***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.**

Dimensions (Tolerances $\pm 0.2\text{mm}$ unless otherwise specified)





Specifications Revisions

Revision	Description	Date	Approved
A	Released from Engineering	07/22/2022	-
B	Updated Operating Temperature	04/18/2023	-
C	Update Spec Format, Add more details for Reliability, Packaging, etc. Add MSL 2	01/24/2025	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.