



|            |                  |
|------------|------------------|
| Data Sheet | SMT-0827-TW-5V-R |
|------------|------------------|

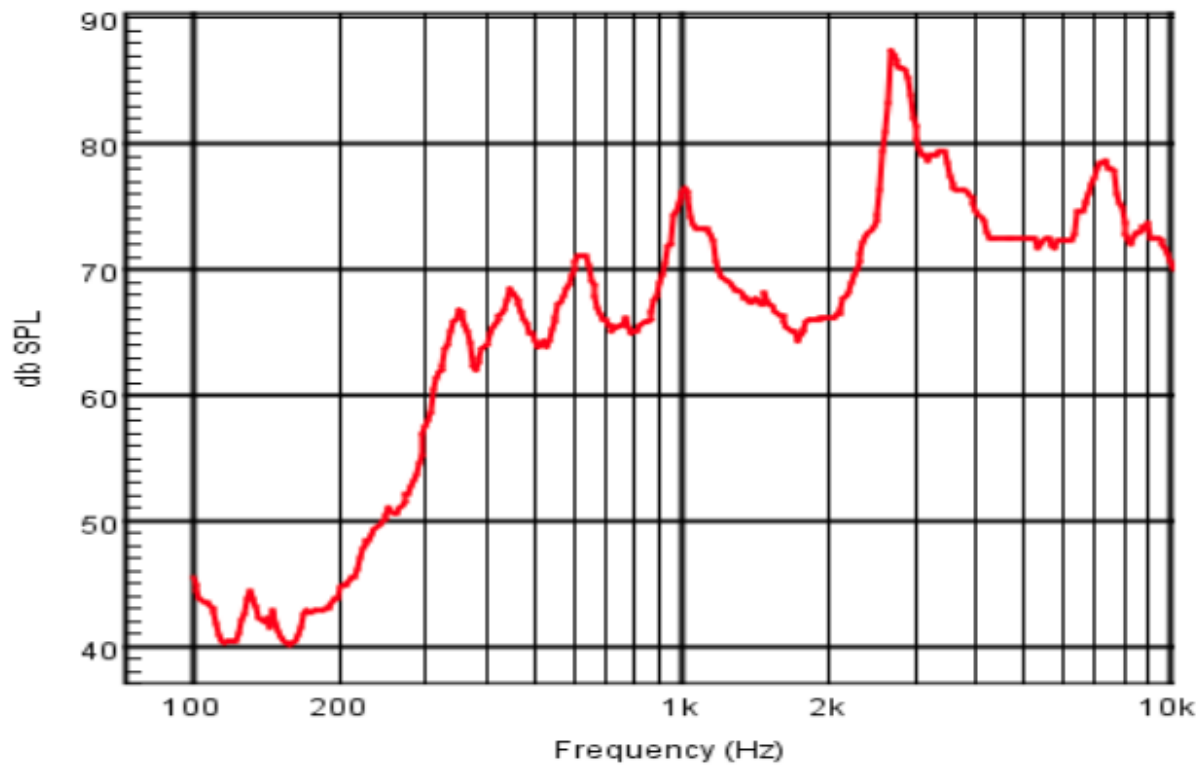
**Features:**

- Top-firing electromechanical transducer designed for 3 to 8 Vp-p
- Small 8.5 x 8.5mm footprint and 6mm height for modern devices
- Designed for reflow soldering using a lead-free profile
- Reflow and Washing Allowed

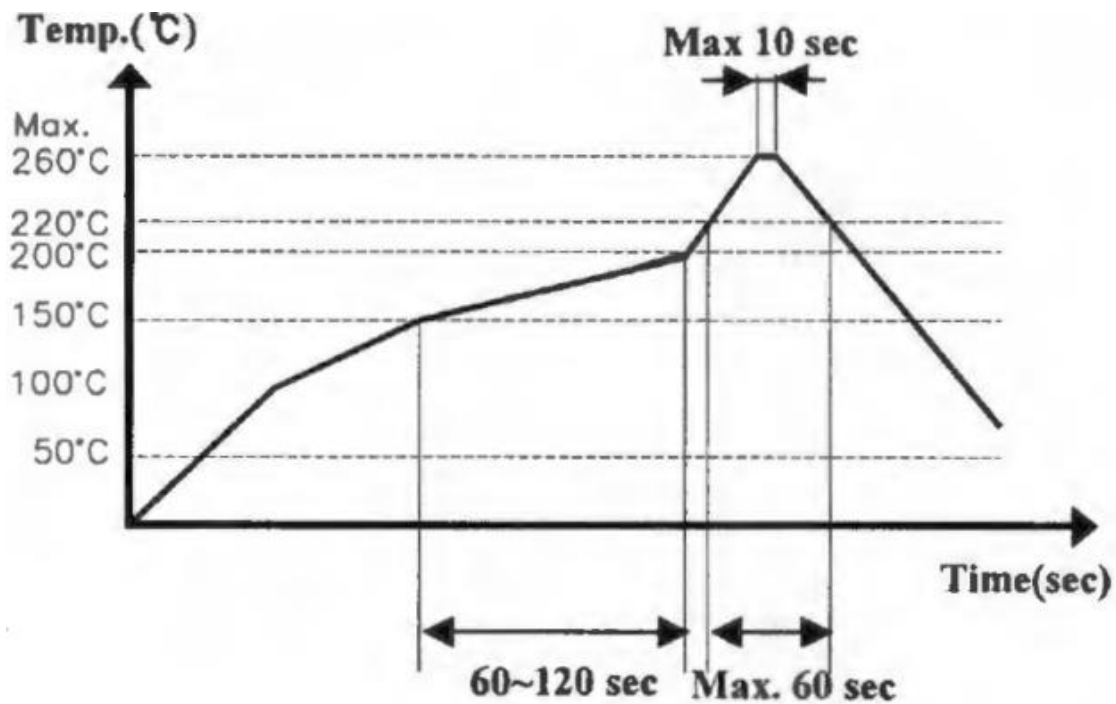
**Specifications**

| Parameters                    | Values                     | Units                                |
|-------------------------------|----------------------------|--------------------------------------|
| Rated Voltage                 | 5                          | V0-pk                                |
| Operating Voltage Range       | 3 - 8                      | V0-pk                                |
| Current Draw at Rated Voltage | 60                         | mA                                   |
| Coil Resistance               | 30 ± 5                     | Ohms                                 |
| Minimum SPL @ 10cm            | 85                         | dBA                                  |
| Resonant Frequency            | 2730 ± 200                 | Hz                                   |
| Housing Material              | LCP                        | -                                    |
| Terminal Material             | Sn Plated Brass            | -                                    |
| Weight                        | 0.6                        | Grams                                |
| Acceptable Soldering Methods  | Hand Solder, Reflow Solder | See page 2 for soldering information |
| Environmental Compliances     | ROHS/REACH                 | -                                    |
| Moisture Sensitivity Level    | 2A                         | -                                    |
| Storage Temperature           | -50 to 95                  | °C                                   |
| Operating Temperature         | -40 to 85                  | °C                                   |

## Typical Frequency Response (5Vpk square wave sweep, 10cm)



## Recommended Reflow Procedure

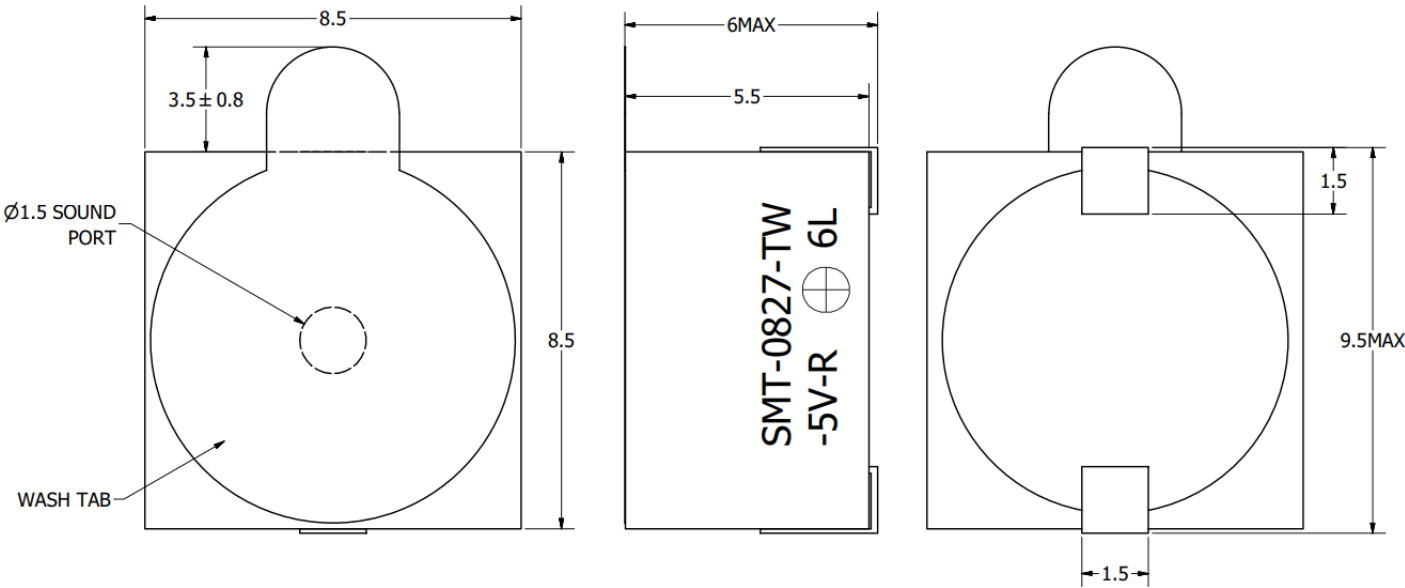


Reliability Testing

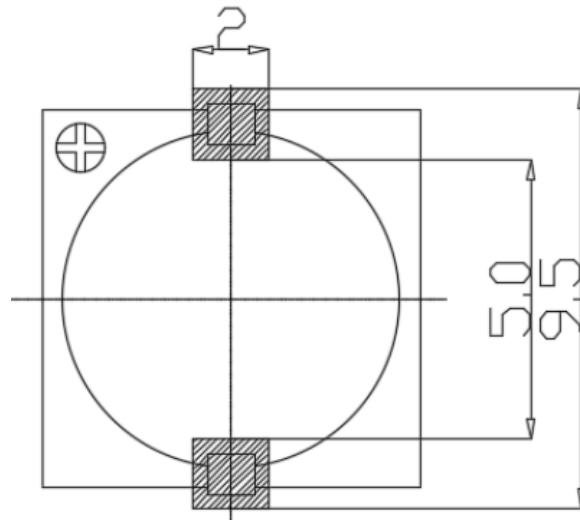
| Type of Test              | Test Specifications   |
|---------------------------|---|
| High Temperature Test     | 96 hours at 95±2°C, with random humidity.                             |
| Low Temperature Test      | 96 hours at -50°C, with random humidity.                              |
| Humidity Test             | 12 hours at 25 to 60°C with relative humidity at 90-95%, 10 cycles.   |
| Temperature Cycle Testing | 90 minutes, -30°C to 70°C, five cycles.                               |
| Vibration Test            | 1.53 mm movement modulated at 10-55 Hz in 3 directions for 6 hours.   |
| Drop Test                 | From a height of 120 cm drop in free fall in six directions, 3 times. |

After testing, part shall rest for two hours and then be tested for a clean, pure tone.

Dimensions



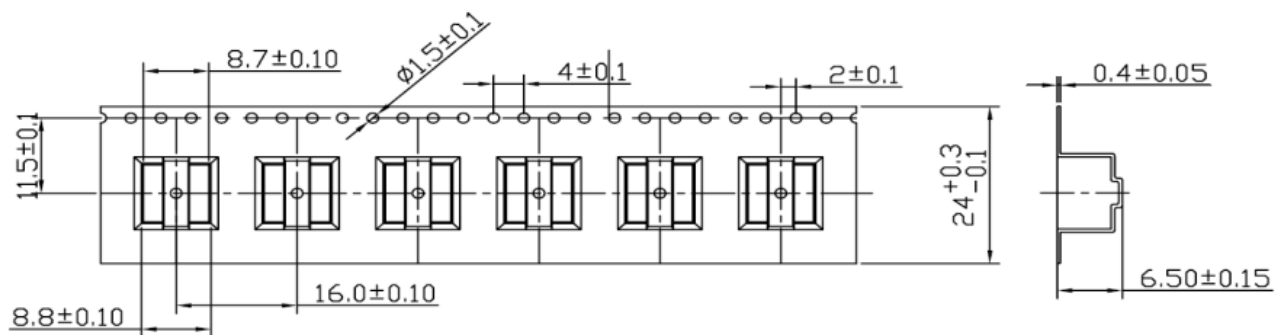
## Suggested Land Pattern\* *(for surface mount parts)*



\*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

### 600pcs Reel



| Specifications Revisions |   |            |          |
|--------------------------|---|------------|----------|
| Revision                 | Description   | Date       | Approved |
| -                        | Released from Engineering   | 03/29/2007 |          |
| A                        | Revised to Inventor 3-D drawing template                          | 11/05/2007 | BR       |
| B                        | Updated to Spec Format, Revise Voltage Units to V0-pk, Add MSL 2A | 02/13/2025 | 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.