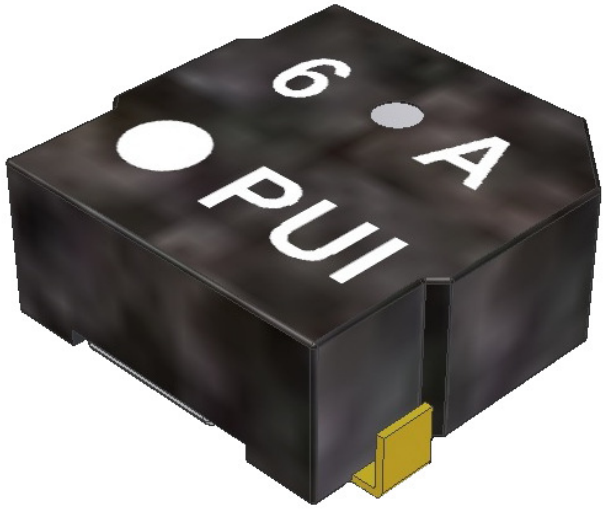
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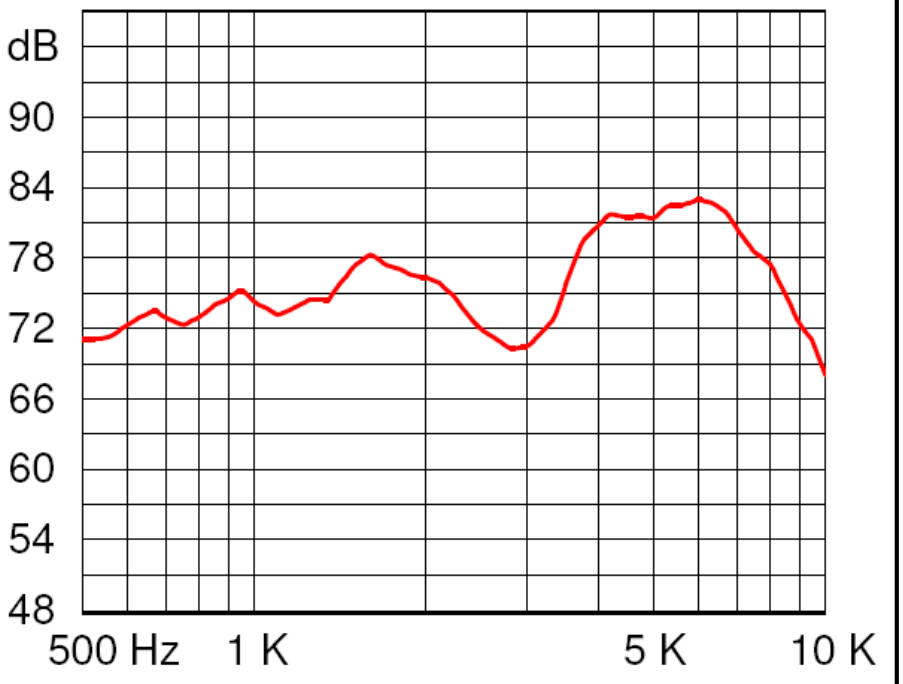
# SMT-0540-T-7-R
# 5x5mm Transducer




## Product Overview

- Top-firing electromechanical transducer designed for 2 to 4 Vp-p
- Tiny 5 x 5mm footprint and 2mm height for thinner devices
- 78 dBA minimum output (3Vp-p @ 10 cm) and 4 kHz resonant frequency
- Designed for reflow soldering using a lead-free profile

**Frequency Response (3 Vp-p @ 0.1 meters)**

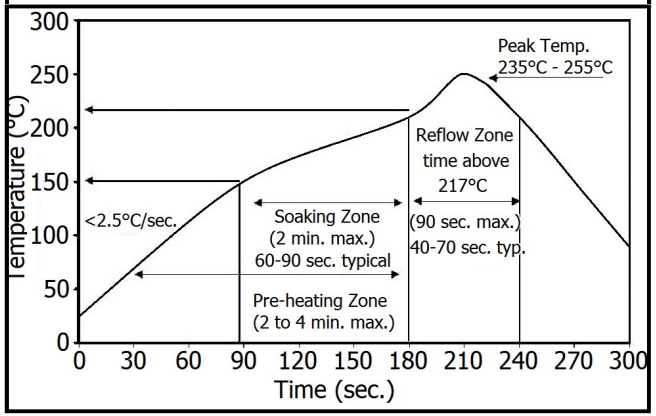



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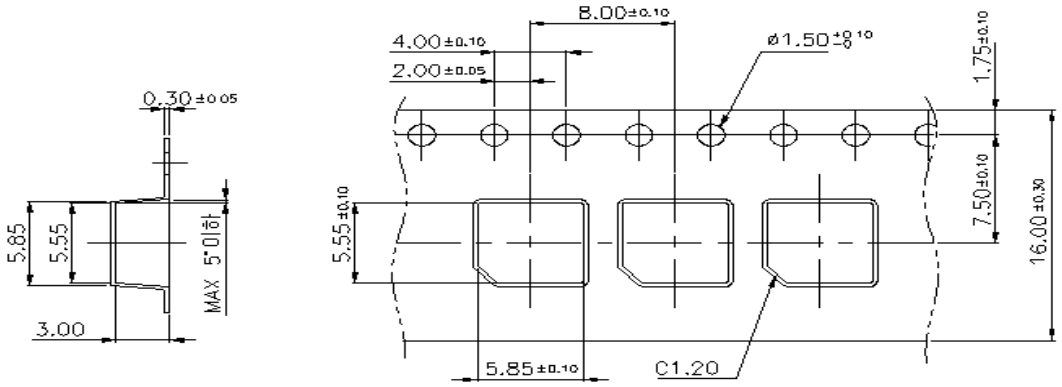
# SMT-0540-T-7-R
# 5x5mm Transducer

| Mechanical and Environment Testing | |
|---|---|
| **Test Description** | **Test Condition** |
| High Temperature | 85°C (±2°C) with random humidity for 96 hours |
| Low Temperature | -40°C (±2°C) with random humidity for 96 hours |
| Humidity | 25°C to 60°C with 90% to 95% relative humidity for 12 hours, 10 cycles |
| Vibration | 1.53 mm movement modulated at 10-55 Hz in 3 directions for 6 hours |
| Drop Test | 120 cm free fall in six directions, 3 cycles |
| Temperature Cycle Test | -30°C to 70°C, five 90 minute cycles |

## Recommended Reflow Profile

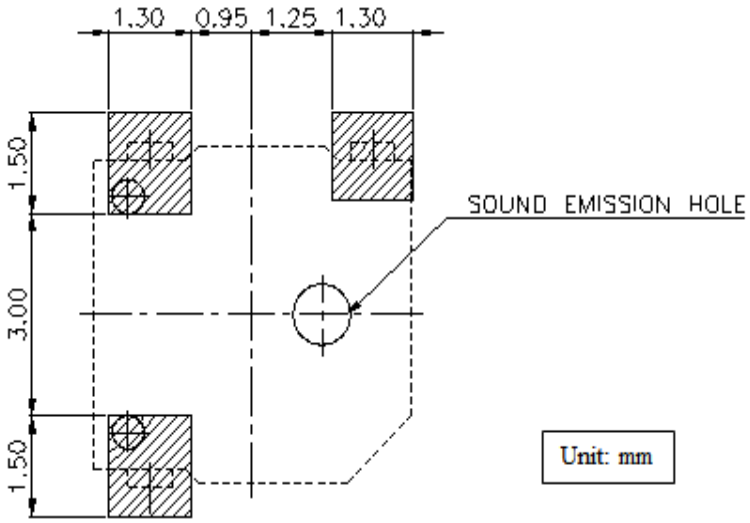



## Tape Dimensions




SMT-0540-T-7-R
Tape Dimensions
2,000 PCS/Reel

## Recommended Land Pattern




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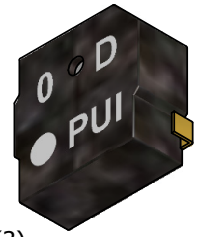
## SPECIFICATIONS

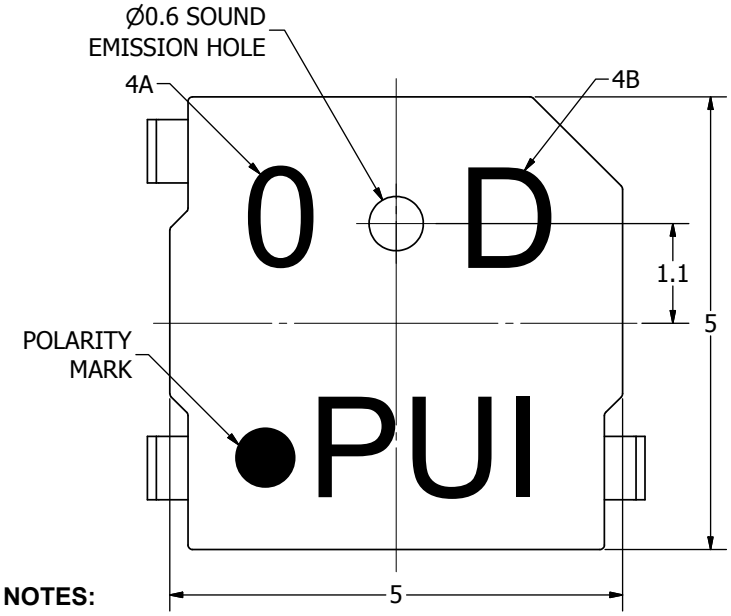
| PARAMETERS | VALUES | UNIT |
|---|---|---|
| RATED VOLTAGE | 3 | Vp-p |
| OPERATING VOLTAGE RANGE | 2 ~ 4 | Vp-p |
| RATED CURRENT (MAX) | 100 | mA |
| COIL RESISTANCE | 12 ± 2 | OHM |
| MINIMUM SPL @ 10 CM | 78 | dBA |
| RESONANT FREQUENCY | 4,000 ± 500 | Hz |
| OPERATING TEMPERATURE | -30 ~ +70 | °C |
| STORAGE TEMPERATURE | -40 ~ +85 | °C |
| HOUSING MATERIAL | LCP | - |
| TERMINAL MATERIAL | Au PLATED PHOSPHOR BRONZE | - |
| WEIGHT | 0.25 | grams |

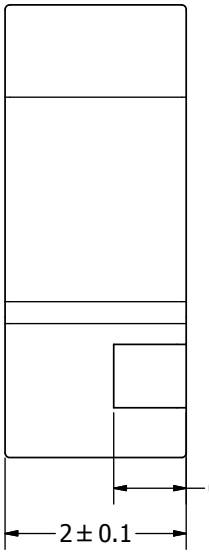
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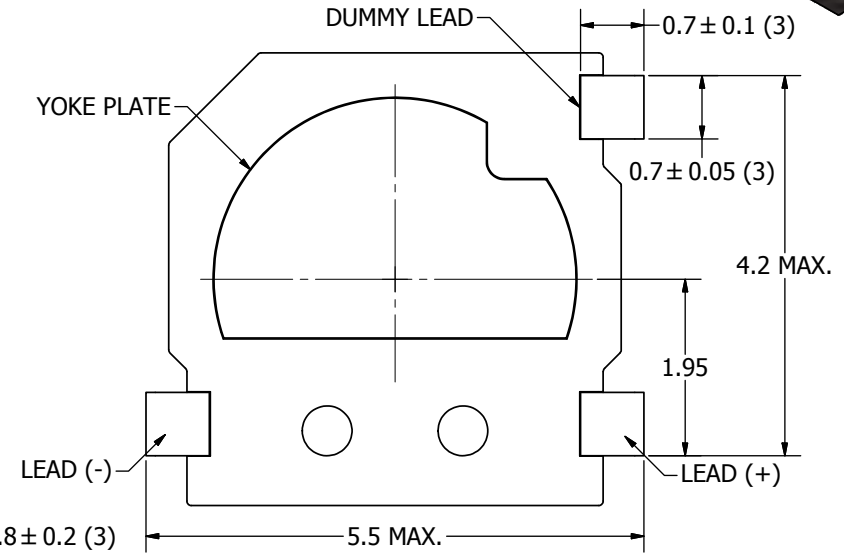
## REVISION HISTORY

| LTR | DESCRIPTION | DATE | APPROVED |
|---|---|---|---|
| - | RELEASED FROM ENGINEERING | 6/18/2008 | |
| A | REVISED TO INVENTOR 3-D DRAWING TEMPLATE | 6/4/2010 | B.R. |




**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWL WITHOUT NOTICE.
3. THIS PART IS RoHS 2002/95/EC COMPLIANT.
4. DATE CODE:
   A. FIRST DIGIT REPRESENTS THE NO. OF THE YEAR.
   B. LAST DIGIT REPRESENTS THE MONTH. (A-JAN~L-DEC.)

| UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE ±0.5 AND ANGLES ARE ±3°. | SIZE | Designed by | Date | Checked by | Date | Approved by | Date | Drawn Date |
|---|---|---|---|---|---|---|---|---|
| | A3 | J.D. | 6/18/2008 | C.W. | 6/18/2008 | B.R. | 6/18/2008 | 6/4/2010 |

SMT-0540-T-7-R.idw

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# SMT-0540-T-7-R

Transducer (Electro-Mech)

| Edition | Sheet |
|---|---|
| - | 1 / 1 |