

pui
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AT-2440-TWT-R 24mm Transducer

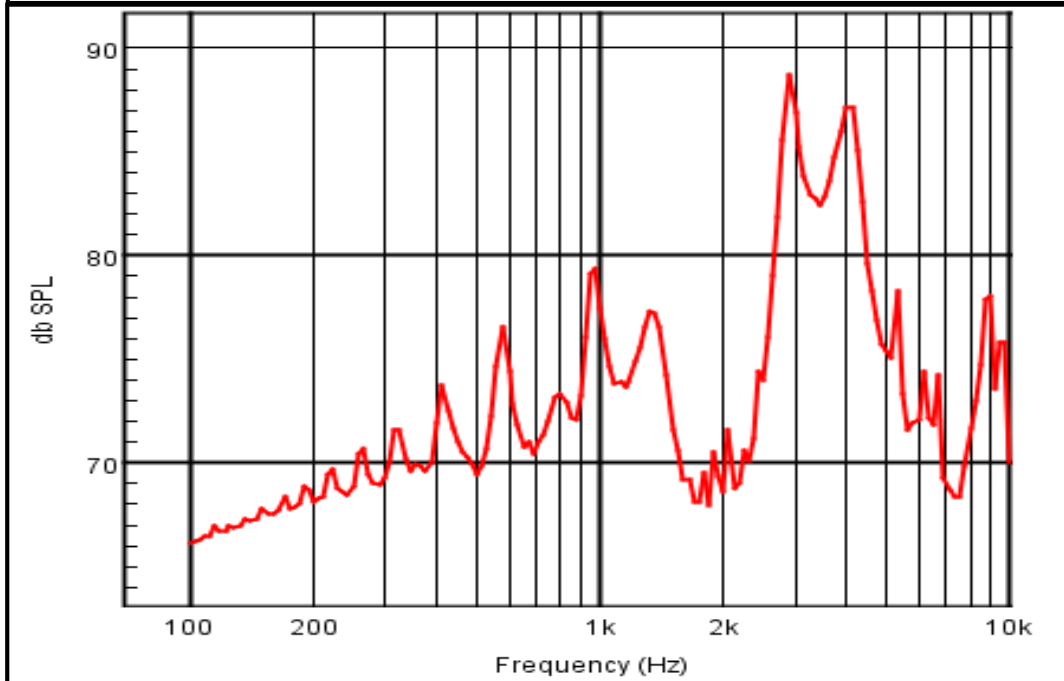
3541 Stop Eight Road • Dayton, Ohio 45414

Product Overview

- 24mm diameter piezo-electric transducer with thru-hole pins
- 80 dBA minimum output (3 Vp-p @ 10 cm) and 4 kHz resonant frequency
- Noryl™ housing withstands Wave soldering temperatures
- Removable wash tag preserves performance

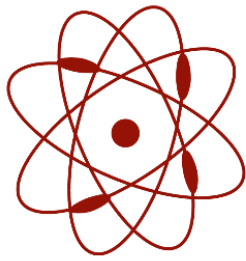


Frequency Response (3Vp-p @ 0.1 meters)



RoHS Compliant





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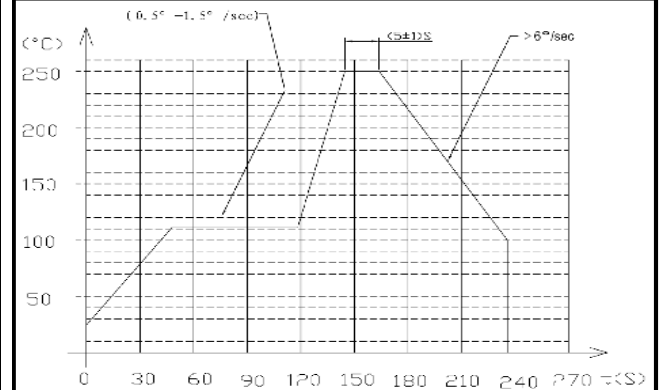
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Mechanical and Environment Testing

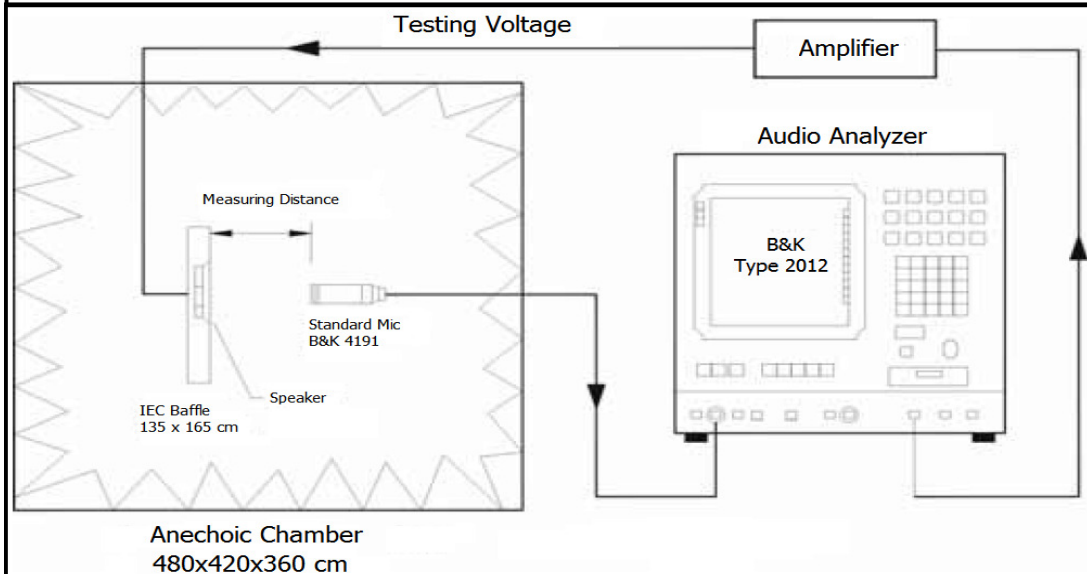
| Test Description | Test Condition |
|------------------------|--|
| High Temperature | 70°C (±2°C) with random humidity for 96 hours |
| Low Temperature | -30°C (±2°C) with random humidity for 96 hours |
| Humidity | 40°C (±2°C) with 90% to 95% relative humidity for 96 hours |
| Vibration | 0.75 mm movement modulated at 10-55 Hz for 3 hours |
| Drop Test | 100 cm free fall onto wood board, 10 cycles |
| Temperature Cycle Test | -30°C to 70°C, 100 cycles |

After tests, part shall rest for 2 hours. Parts are then tested for clean, pure tones.

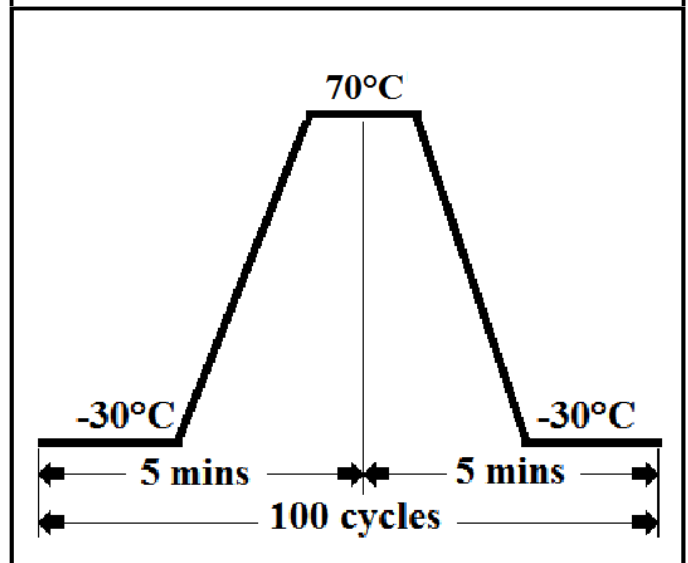
Wave Solder Profile



Frequency Response and SPL Measurement Setup



Temperature Cycle Test Graph



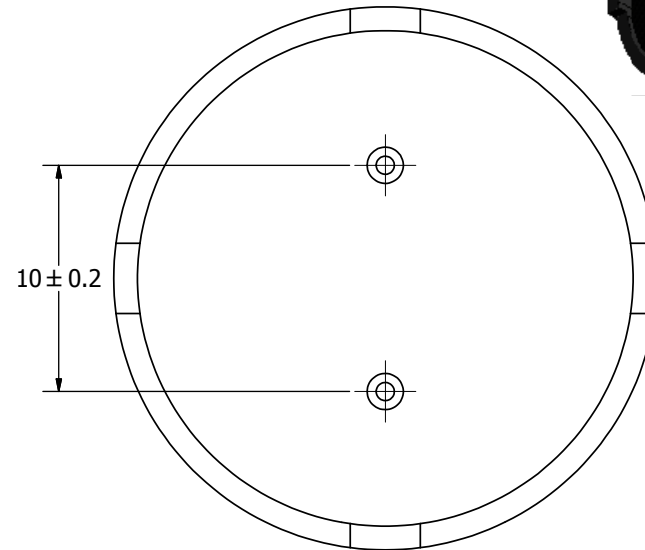
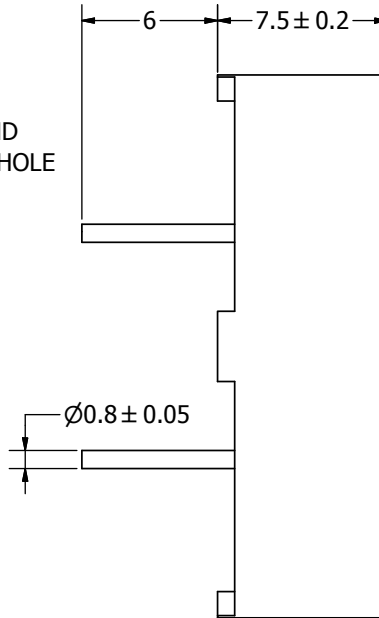
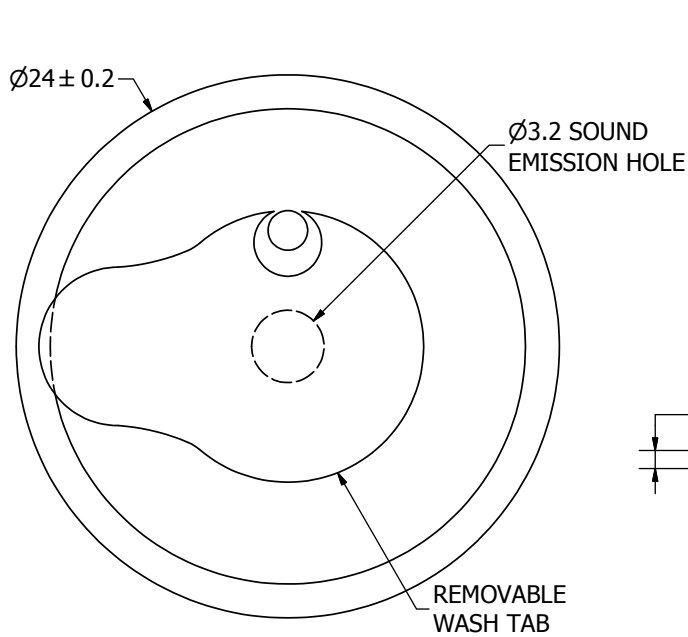
SPECIFICATIONS

| PARAMETERS | VALUES | UNITS |
|-------------------------|----------------------|-------|
| RATED VOLTAGE | 3 | Vp-p |
| OPERATING VOLTAGE RANGE | 1 ~ 30 | Vp-p |
| RATED CURRENT (MAX) | 1 | mA |
| CAPACITANCE | 21,000 ± 30% | pF |
| MINIMUM SPL @ 10 CM | 80 | dB |
| RESONANT FREQUENCY | 4,000 ± 500 | Hz |
| OPERATING TEMPERATURE | -20 ~ +60 | °C |
| STORAGE TEMPERATURE | -30 ~ +70 | °C |
| HOUSING MATERIAL | NORYL | - |
| TERMINAL MATERIAL | Sn PLATED RED COPPER | - |
| WEIGHT | 3 | grams |

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REVISION HISTORY

| LTR | DESCRIPTION | DATE | APPROVED |
|-----|--|------------|----------|
| - | RELEASED FROM ENGINEERING | 8/19/2004 | |
| A | REVISED DRAWING TITLE | 8/23/2004 | R.W. |
| B | REMOVED LEAD FREE ADDED RoHS NOTE | 8/10/2005 | |
| C | REVISED POSITIVE TERMINAL INDICATOR | 12/12/2007 | R.W. |
| D | REVISED TERMINAL MATERIAL | 11/6/2008 | B.R. |
| E | REVISED TO INVENTOR 3-D DRAWING TEMPLATE | 11/11/2008 | 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.

| UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE ± 0.5 AND ANGLES ARE $\pm 3^\circ$. | SIZE A3 | Designed by | Date | Checked by | Date | Approved by | Date | Drawn Date |
|--|-------------------|--|------------|------------|-----------|-------------|-----------|------------|
| | | J.D. | 12/31/2007 | X.X. | 7/18/2007 | X.X. | 7/18/2007 | 11/11/2008 |
| AT-2440-TWT-R.idw | |  AT-2440-TWT-R Transducer (Piezo) | | | | Edition | Sheet | |
| | | | | | | - | 1 / 1 | |