

pui
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AI-2438-TT-R 24mm Indicator

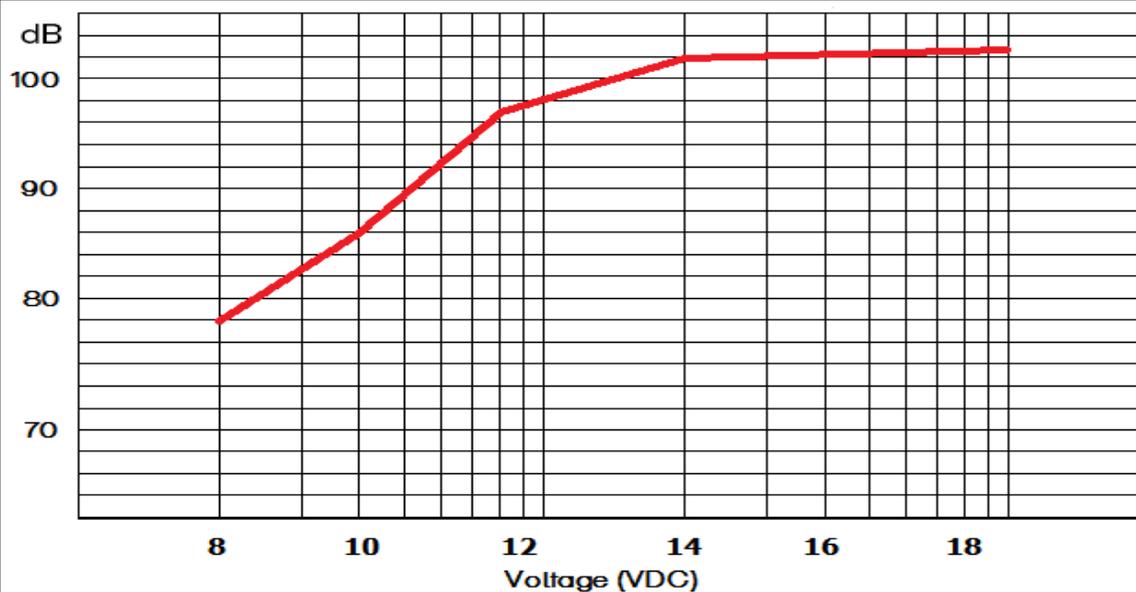


3541 Stop Eight Road • Dayton, Ohio 45414

Product Overview

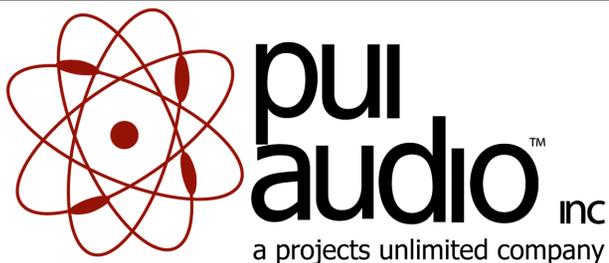
- 24mm diameter self-drive indicator
- 95 dBA minimum output (12 VDC @ 10 cm) and 3,800 Hz continuous tone
- High-temp UL-94 ABS housing withstands Wave soldering temperatures
- Designed to be used in alert circuits

SPL vs Voltage (measured @ 30 cm)



RoHS Compliant





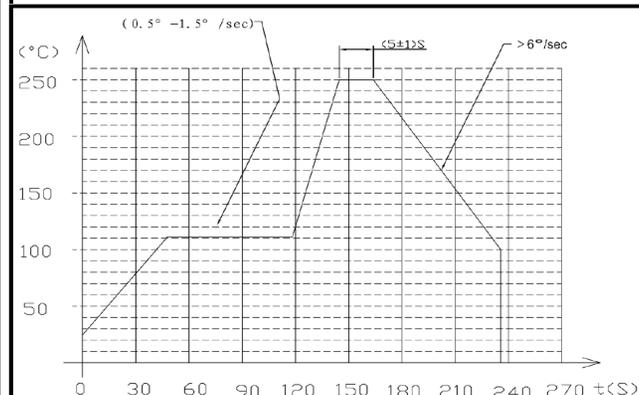
AI-2438-TT-R 24mm Indicator

Mechanical and Environment Testing

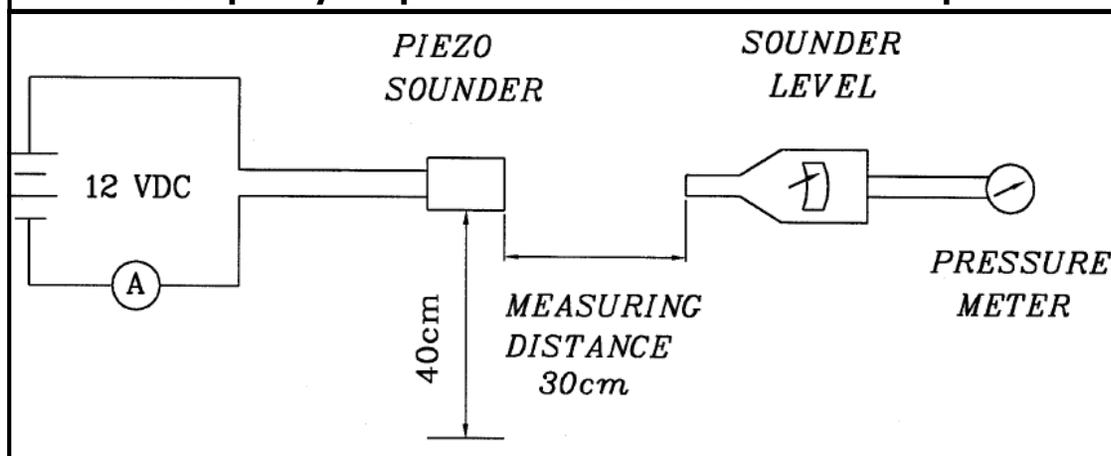
| Test Description | Test Condition |
|------------------------|---|
| High Temperature | 95°C ($\pm 2^\circ\text{C}$) with random humidity for 96 hours |
| Low Temperature | -40°C ($\pm 2^\circ\text{C}$) with random humidity for 96 hours |
| Humidity | 40°C ($\pm 2^\circ\text{C}$) with 90% to 95% relative humidity for 96 hours |
| Vibration | 1.5 mm movement modulated at 10-55 Hz for 3 hours |
| Drop Test | 75 cm free fall onto wood board, 9 cycles |
| Temperature Cycle Test | -40°C to 95°C, five 3 hour cycles |

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

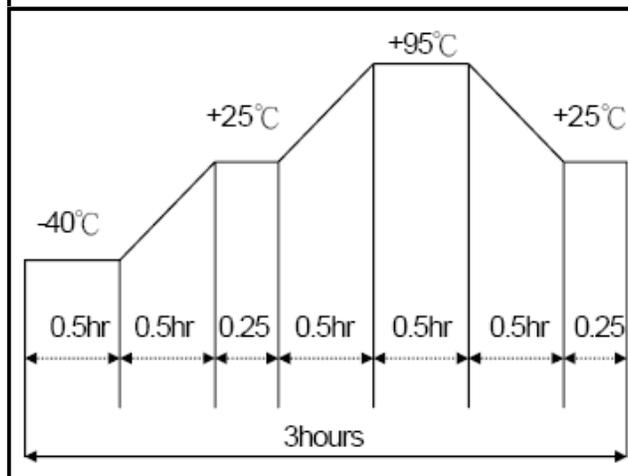
Wave Solder Profile



Frequency Response and SPL Measurement Setup



Temperature Cycle Test Graph



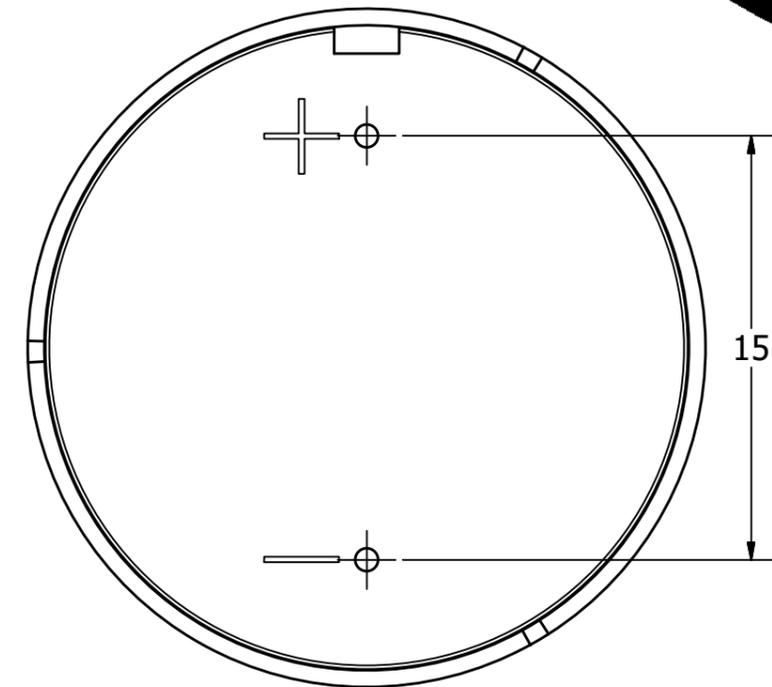
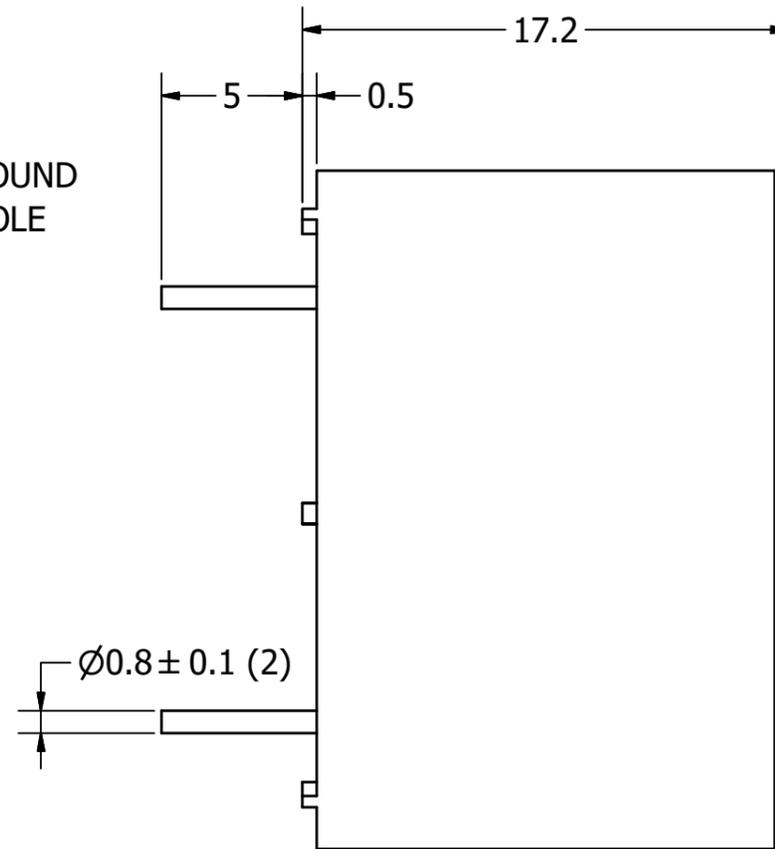
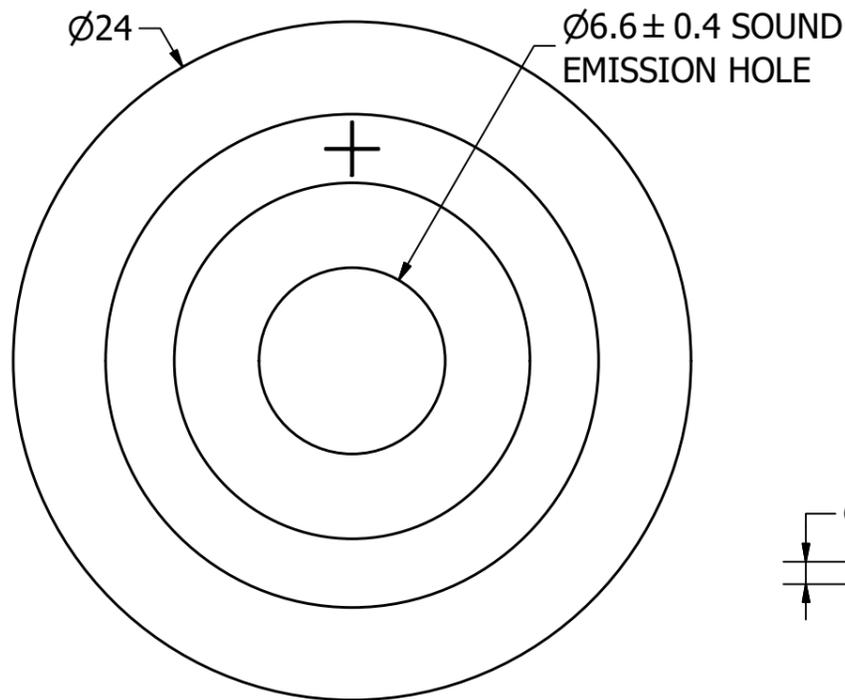
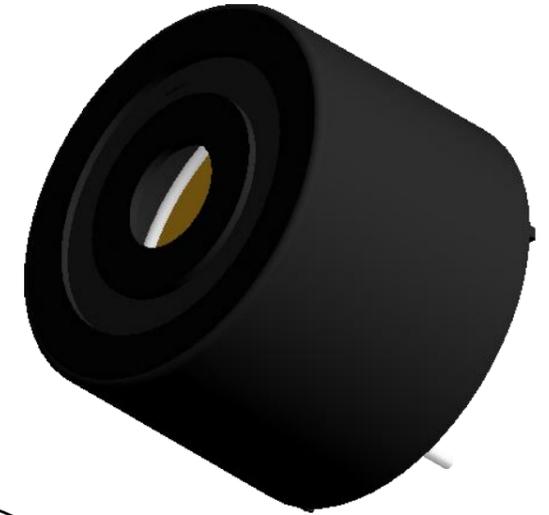
SPECIFICATIONS

| PARAMETERS | VALUES | UNITS |
|-------------------------|------------------|-------------|
| RATED VOLTAGE | 12 | Vdc |
| OPERATING VOLTAGE RANGE | 8 ~ 16 | Vdc |
| RATED CURRENT (MAX) | 12 | mA |
| MINIMUM SPL @ 10 CM | 95 | dBA |
| RESONANT FREQUENCY | 3,800 ± 500 | Hz |
| TONE OR PULSE RATE | CONTINUOUS | 0 pulse/sec |
| OPERATING TEMPERATURE | -30 ~ +85 | °C |
| STORAGE TEMPERATURE | -40 ~ +95 | °C |
| HOUSING MATERIAL | ABS | - |
| TERMINAL MATERIAL | Sn PLATED BRONZE | - |
| WEIGHT | 4 | grams |

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REVISION HISTORY

| LTR | DESCRIPTION | DATE | APPROVED |
|-----|---|------------|----------|
| - | RELEASED FROM ENGINEERING | 1/5/2006 | |
| A | REVISED HEIGHT DIMENSION | 10/25/2007 | R.W. |
| B | REVISED TO INVENTOR 3-D DRAWING TEMPLATE & HEIGHT | 1/29/2008 | B.R. |
| C | REVISED RATED CURRENT | 9/6/2013 | B.R. |
| D | REVISED OPERATING VOLTAGE RANGE | 1/4/2019 | M.V. |



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWL WITHOUT NOTICE.
3. THIS PART IS RoHS 2011/65/EU COMPLIANT.

| | | | | | | | | | |
|--|-------------------|------------------|----------|---------------------|----------|-------------|----------|------------|--|
| UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS, TOLERANCES ARE ±0.5 AND ANGLES ARE ±3°. | SIZE A3 | Designed by | Date | Checked by | Date | Approved by | Date | Drawn Date | |
| | | J.A.F. | 1/5/2006 | E.P. | 1/5/2006 | B.R. | 1/5/2006 | 1/29/2008 | |
| AI-2438-TT-R.idw | | | | AI-2438-TT-R | | | | | |
| | | Indicator | | | | Edition | | Sheet | |
| | | | | | | - | | 1 / 1 | |