



PUI audio



Data Sheet

AI-1223-TWT-3V-2-R

Features:

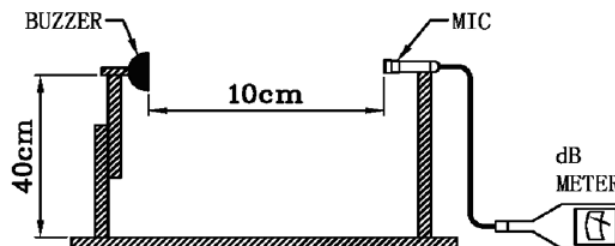
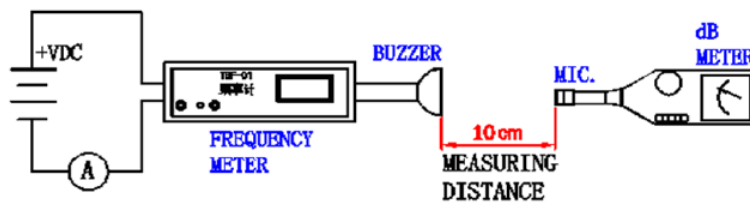
- Top-firing, thru-hole magnetic indicator
- 3 V_{DC}, 2300 Hz resonant frequency
- Wave solder and wash allowed

Specifications

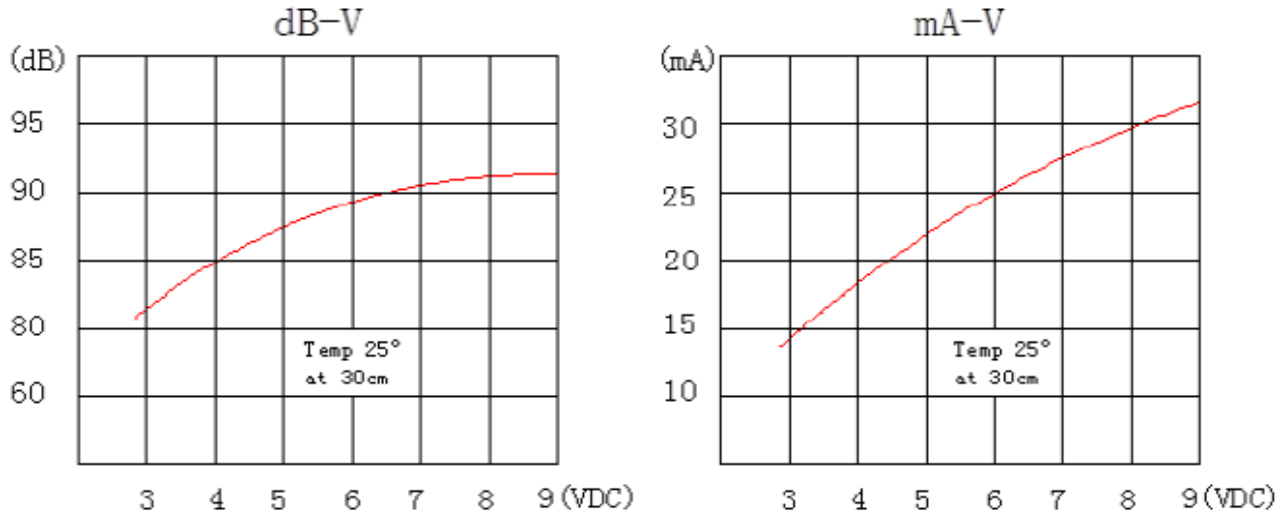
Parameters	Values	Units
Rated Voltage	3	VDC
Operating Voltage Range	2 ~ 4	VDC
Current Draw at Rated Voltage	30 Max.	mA
Minimum SPL @ 10cm	82	dBA
Resonant Frequency	2,300±300	Hz
Tone or Pulse Rate	Continuous	-
Housing Material	PBT	-
Terminal Material	Tin Plated Brass	-
Weight	2	Grams
Acceptable Soldering Methods	Hand Solder, Wave Solder	-
Environmental Compliances	RoHS/REACH	-
Storage Temperature	-30 ~ +80	°C
Operating Temperature	-20 ~ +70	°C

Measurement Method (Temperature: 25±3°C; Relative Humidity: 60% ~ 70%)

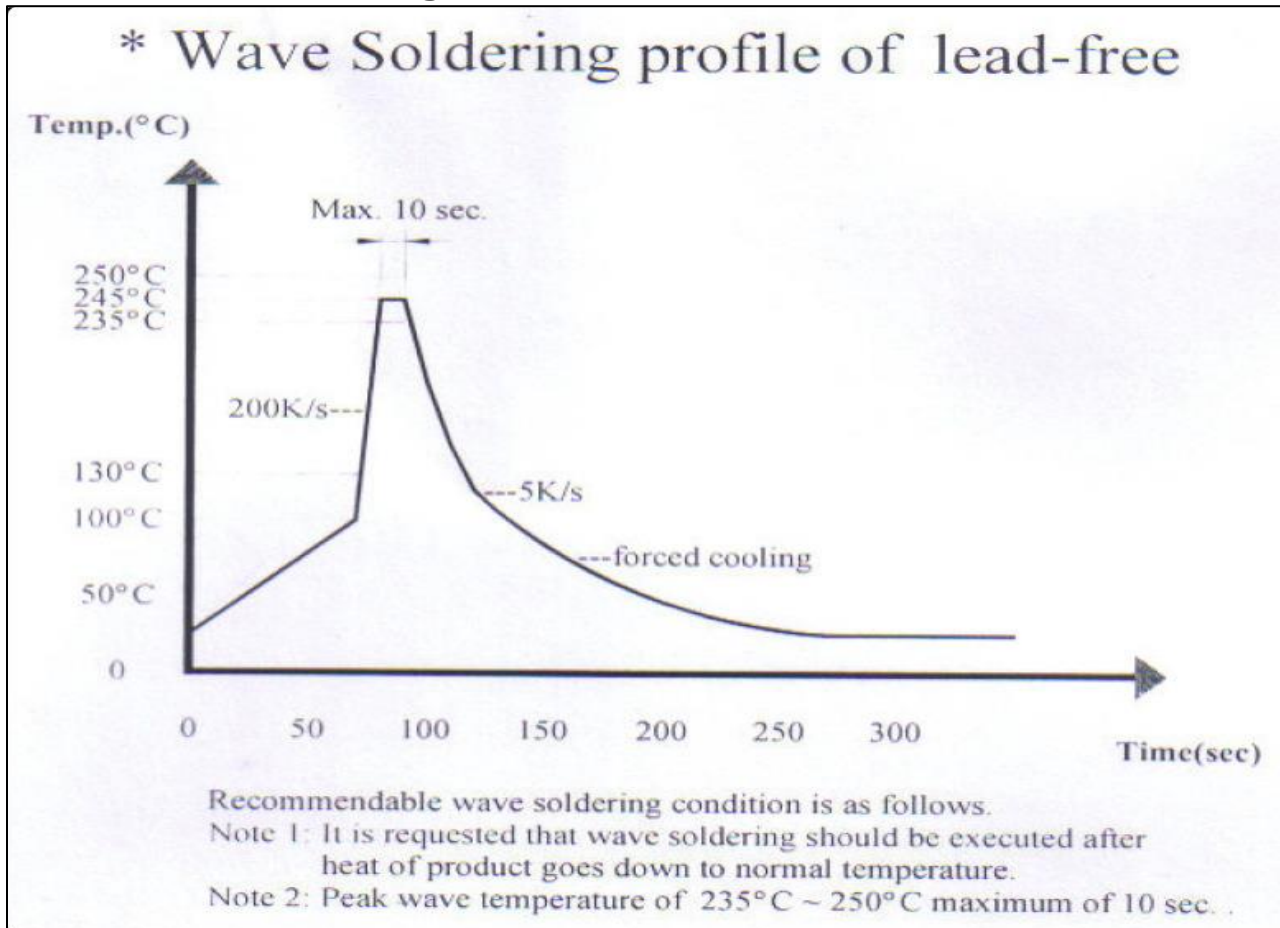
Standard test fixture (Distance: 10cm; Voltage: 3V_{DC}; Resonant Frequency: 2,300±300Hz)



Typical Frequency Response

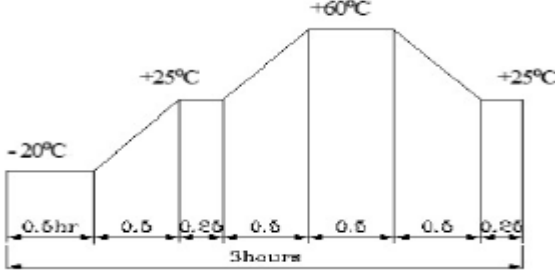


Recommended Soldering Profile



***Manual soldering at iron temp 350C for 3 seconds or less per terminal.**

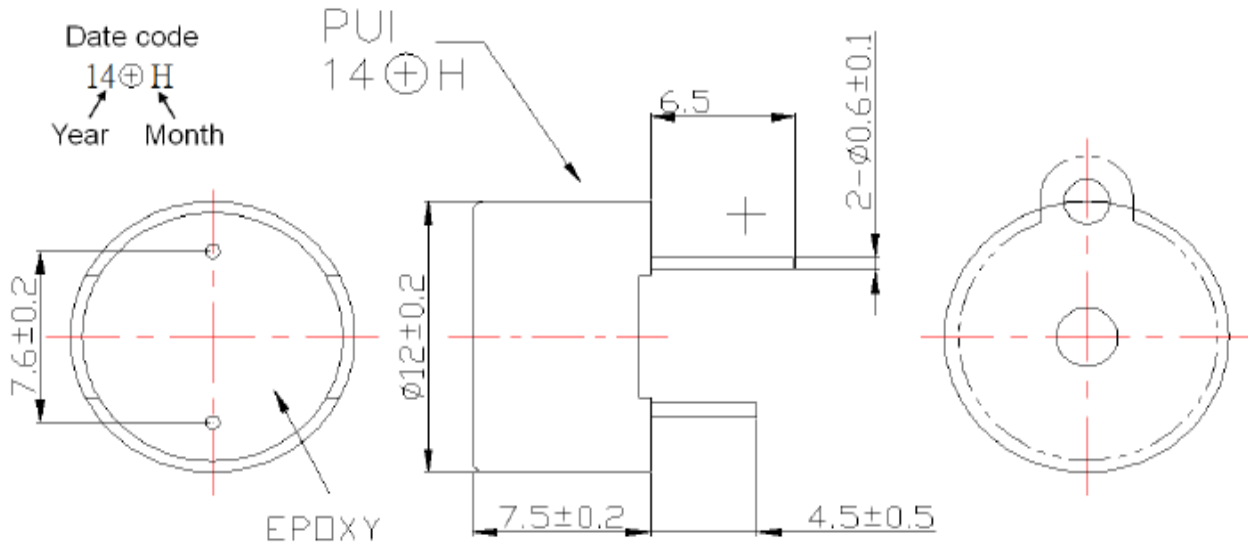
Reliability Testing

Type of Test	Test Specifications
High Temperature Test	Placed in chamber at $+80\pm 2^{\circ}\text{C}$ for 96 hours, then rested at room temperature for 2 hours.
Low Temperature Test	Placed in chamber at $-30\pm 2^{\circ}\text{C}$ for 96 hours, then rested at room temperature for 2 hours.
Humidity Test	Placed in chamber at $+40\pm 2^{\circ}\text{C}$ & 90~95% RH for 96 hours, then rested at room temperature for 2 hours.
Temperature Cycle Testing	Part subjected to 5 cycles of test, then rested at $+25^{\circ}\text{C}$ for 4 hours.  <p>The diagram illustrates a temperature cycle testing profile over a 3-hour period. It starts at -20°C for 0.5 hours, then ramps up to $+25^{\circ}\text{C}$ (0.5 hr), reaches $+60^{\circ}\text{C}$ (0.5 hr), and returns to $+25^{\circ}\text{C}$ (0.5 hr). This sequence is repeated twice, with a final 0.5-hour dwell at $+25^{\circ}\text{C}$. The total duration is 3 hours.</p>
Solderability Test	Lead terminals immersed in rosin for 5 seconds, then immersed in solder bath of $+300\pm 5^{\circ}\text{C}$ for 3 ± 1 seconds.
Terminal Strength Test	9.8N (1.0kg) force applied to each terminal for 10 seconds in each axial direction.
Vibration Test	Vibration applied with amplitude of 1.5mm and 10 ~ 55Hz band of vibration frequency to each direction (X, Y, Z) for 2 hours each (6 hours total).
Drop Test	Free drop a unit from the height 75cm on to the surface of a 4cm thick hard wood board in any direction, 6 times.
Load Test	If applicable, state the conditions of the load test

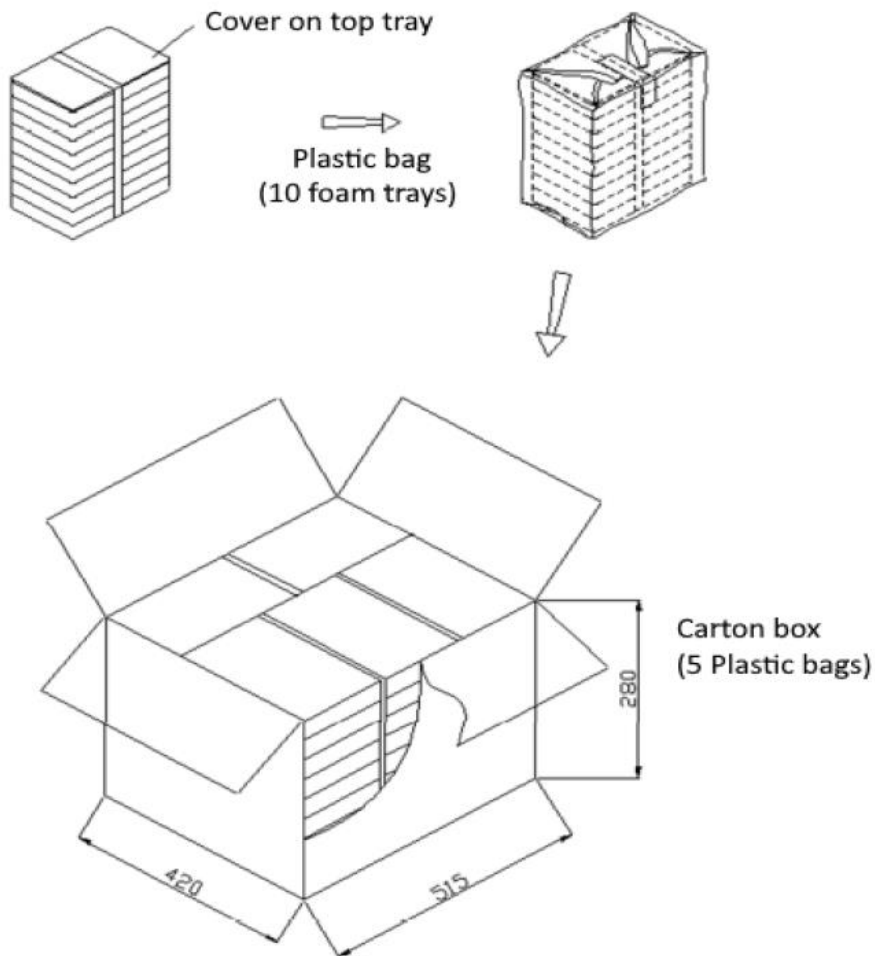
90% of lead terminals shall be wet with solder after solderability test.

Parts pass after tests, values shall be within $\pm 10\%$ of original ones. SPL shall be within $\pm 10\text{dB}$.

Dimensions



Packaging



Foam Tray	240mmx160mm	1x100PCS=50PCS
Plastic Bag		10x100PCS=1000PCS
Carton Box	420mmx515mmx280mm	5x1000PCS=5000PCS

Specifications Revisions

Revision	Description	Date
-	RELEASED FROM ENGINEERING	06/24/2014
A	Revised Frequency Tolerance	08/22/2017
B	Change internal IC to single coil design. Adjust resonant frequency tolerance from 500Hz to 300Hz. Occurs for parts D/C 23L and newer.	11/13/2023

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.