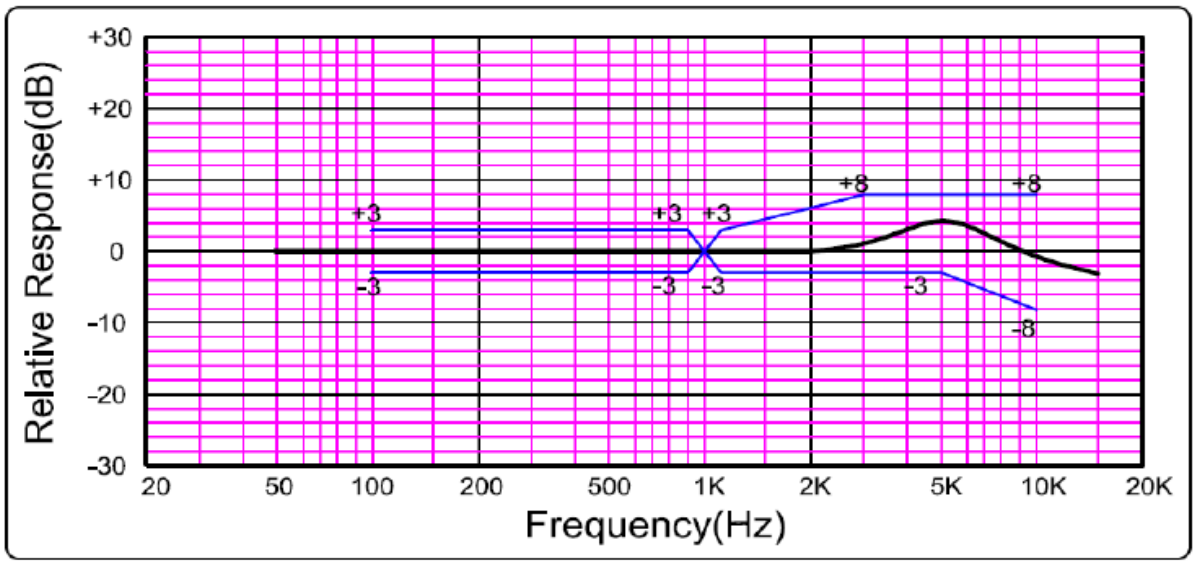
Data Sheet	AOW-6540L-R

Specifications

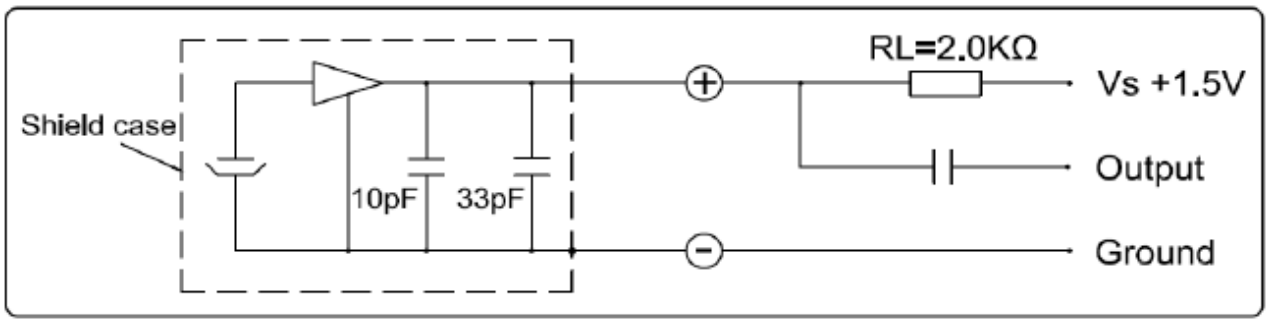
Parameters	Values	Units
Sensitivity (1 kHz @ 50cm) 0 dB=1V/Pa	-40 ±3	dB
Rated Voltage	1.5	VDC
Output Impedance (@ 1 kHz)	2000	kΩ
Current consumption *(List voltage and resistive load)*	0.3	mA
Signal-to-Noise Ratio (1kHz, 94 dB input, A-weighted)	>65	dB
Decreasing Voltage (Vs of 1.5 to 1.1)	3	dB
Frequency Range	50 ~ 16,000	Hz
Operating Voltage Range	1.5 ~ 10	VDC
Maximum SPL Input (THD<3%) Acoustic Overload Point	110	dB
Directivity	Omni-directional	-
Acceptable Soldering Methods	Hand Solder	See page 2 for soldering information
Environmental Compliances	ROHS 2015/863/EU	-
Operating Temperature	-20 ~ +60	°C
Storage Temperature	-40 ~ +70	°C
Weight	0.3	Grams

Typical Frequency Response (1.5 VDC input with acoustic source spaced 50cm from microphone)



PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925

Recommended Drive Circuit



Microphone Handling Precautions

High temperature and/or static electricity may damage microphones. To ensure careful handling, we suggest following these precautions:

- Ensure the power rating of the soldering iron is below 90 watts
- The temperature of the soldering iron must be limited to 360°C ±10°C (680°F ±50°F)
- Soldering duration for each terminal shall be at or under 2 seconds
- If practical, use a metal fixture to hold the microphone in-place and to act as a heatsink. A fixture should have appropriate diameter holes drilled through the entire fixture to prevent pressure from being placed on the diaphragm (as below)

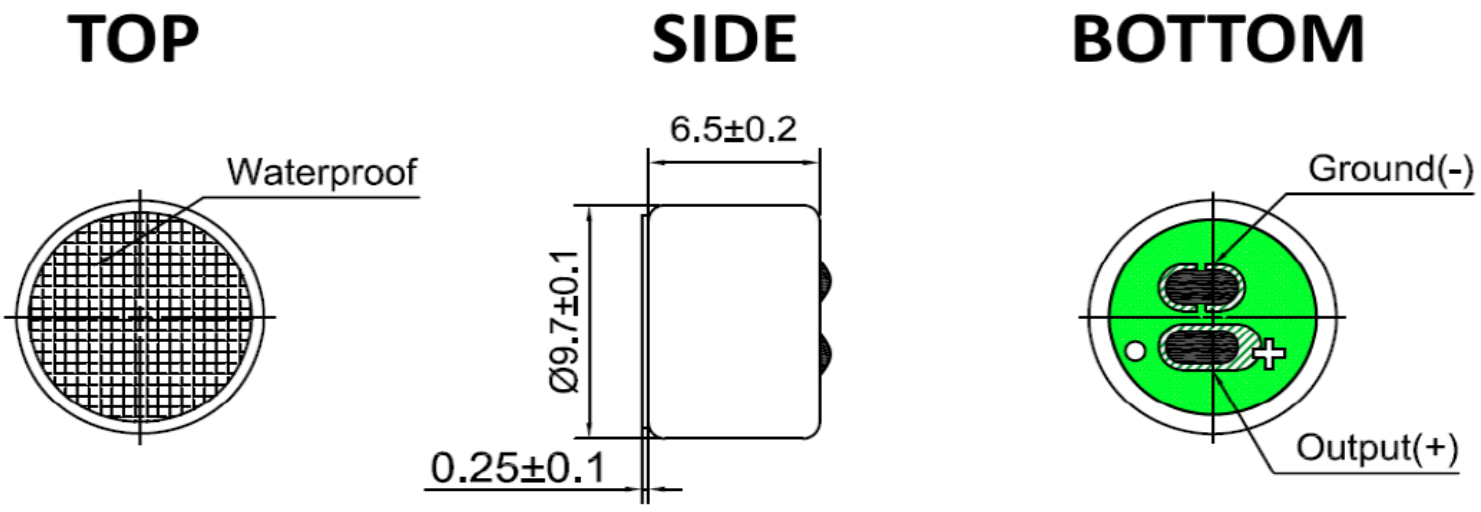
PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925

Reliability Testing

Type of Test	Test Specifications
High Temperature Test	200 hours at +70°C ± 3°C followed by two hours in normal room temperature
Low Temperature Test	200 hours at -25°C ± 3°C followed by two hours in normal room temperature
Humidity Test	200 hours at +40°C ± 3°C with relative humidity at 90% to 95% followed by 2 hours in normal room temperature
Temperature Cycle Testing	30 minutes at -25°C, 10 minutes at 20°C, 30 minutes at +70°C, 10 minutes at 20°C for five cycles, followed by 2 hours in normal room temperature
Vibration Test	10 to 55 Hz for 1 minute with 1.52mm distance, followed by a two-hour 3 axis test in packaging
Drop Test	Drop microphones in packaging onto concrete floor from 1 meter height in each of 3 axes
ESD Test (according to IEC 6100)	1. Contact discharge - Discharge 6000 VDC from capacitor into microphone output through 330Ω resistor ten times. 2. Air discharge - Discharge 8000 VDC into sound hole of the microphone ten times.

After each test, the sensitivity shall be ±3 dB of the original sensitivity.

Dimensions



PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925

Specifications Revisions

Revision	Description	Date
-	Released from Engineering	4/14/2021

Note:

1. Unless otherwise specified:
   A. All dimensions are in millimeters.
   B. Default tolerances are ±0.5mm and angles are ±3°.
2. Specifications subject to change or withdrawal without notice.
3. This part is ROHS 2015/863/EU compliant.

PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925