



# PUIaudio



Data Sheet

ABLF2040A

## Features

- Lead Free Piezoelectric Bender
- 20mm
- Resonant Frequency of 4KHz

## Specifications

Parameters	Values	Units
Resonant Frequency	4,000 ± 500	Hz
Resonant Impedance (Max)	500	Ohms
Rated Voltage	30	Vp-p
Capacitance (@ 120 Hz)	30,000 ± 30%	pF
Plate Material	Nickel	-
Storage Temperature	-20 ~ +80	°C
Operating Temperature	0 ~ +70	°C
Environmental Compliances	RoHS/REACH	

## Measurement and Test Method

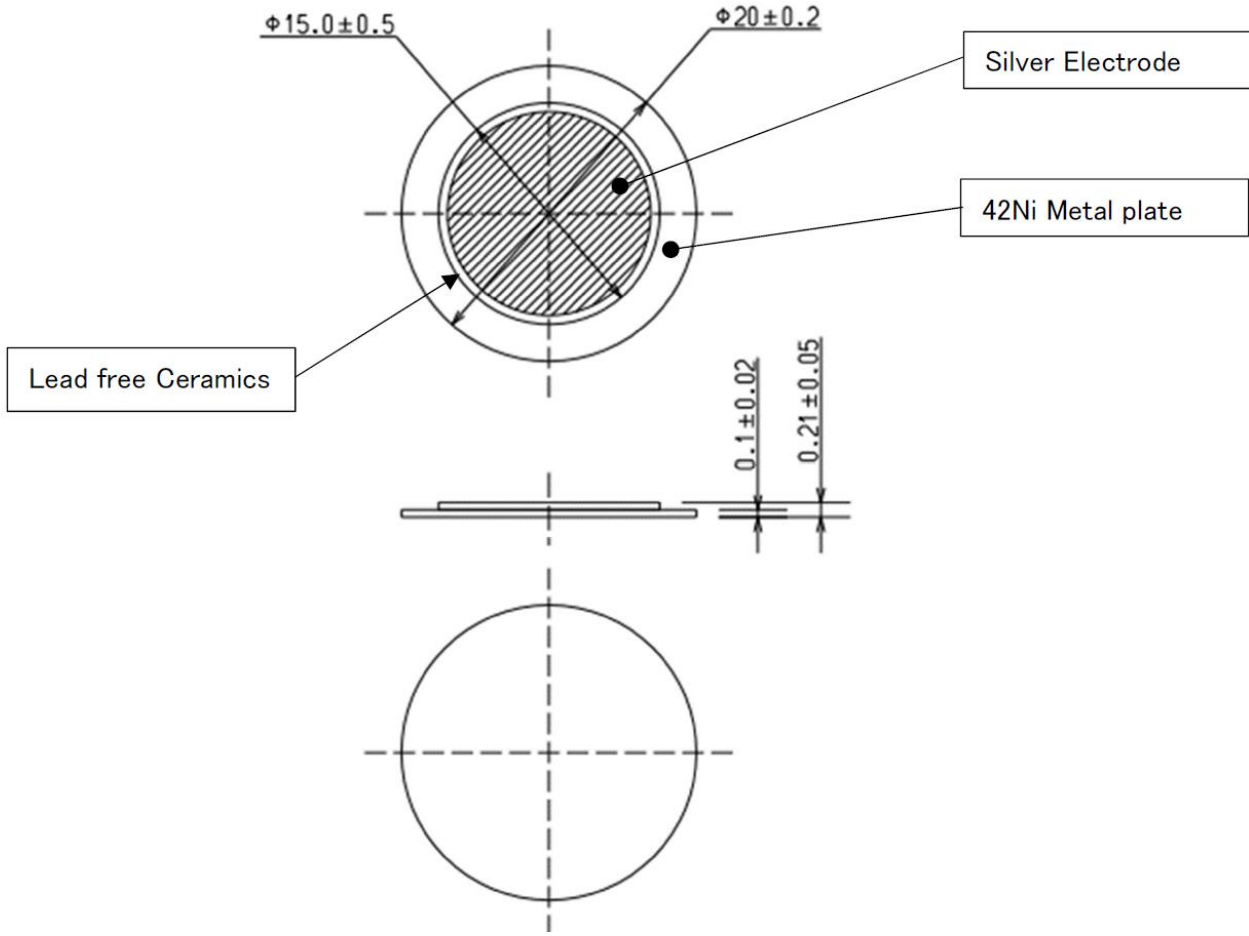
Test Condition: Temperature 15~40 °C, humidity 10~90% R.H.

### Electrical Characteristics Test Method

- Resonant Frequency & Resonant Resistance: They are measured by IMPEDANCE ANALYZER with a pincher probe holding node point. (at 0.5V)
- Electrostatic Capacitance: This is measured by LCR Meter or IMPEDANCE ANALYZER with a pincher probe. (Frequency 1kHz, 1V)
- Dimensions: Diameter is measured by a caliper or optical measuring instrument and Thickness is measured by a micrometer.

## Dimensions

Polarity: - The side without dots is positive



## Precautions

- 1) No dirt, scratches, burrs, cracks, or missing electrodes that may affect electrical performance.
- 2) The distance between the edge of electrode from the edge of the piezo ceramic is greater than 0.1 mm.
- 3) There is no crack within the edge of the electrode.
- 4) The crack on the piezo ceramic does not reach the edge of Electrode.
- 5) The piezo ceramic must be axially centered within 1.5 mm on the vibration plate.
- 6) Discoloration of electrodes due to sulfidation is acceptable.



Example of electrode sulfidation

## Handling Precautions

(1) Do not drop the product (Lead free piezo element). When subjected to a mechanical shock, the product may accumulate a high voltage, resulting in an electric shock to anyone who touches it. Also, if such a product is connected to a circuit, it may damage transistor, LSI and/or other electric components. The product, which may have accidentally been subjected to a mechanical shock, can be made safe by shorting it between the electrodes.

2) Take special protective measures to prevent deterioration and breakdowns, whenever

the products are used in the following unfriendly areas:

1. Dusty places
2. Hot or frosty places
3. Areas exposed to sunlight
4. Wet location
5. Humid Environment
6. Area exposed to solvents or their vapor.

(3) When operating the product outdoors, protect it from moisture to ensure normal operation.

(4) Do not apply a DC current to the product, otherwise, silver migration may occur, which will lower the insulation resistance and cause the product to stop functioning.

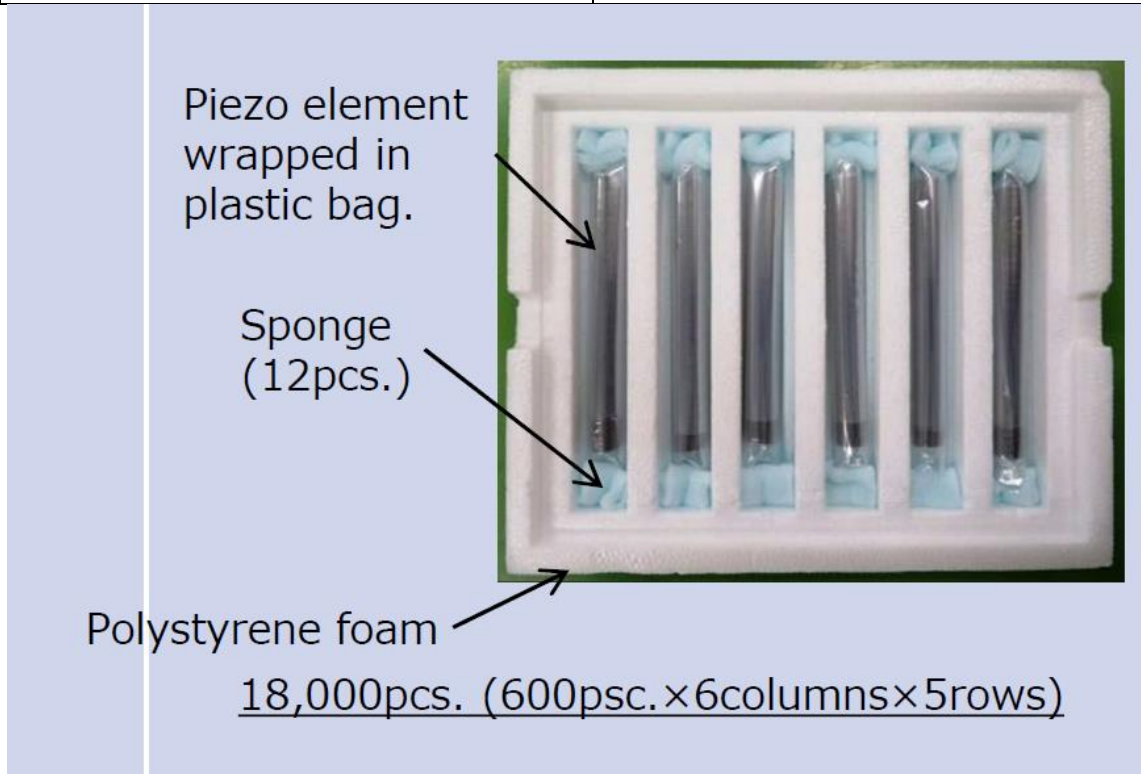
(5) Please do not handle the main body. If you handle the main unit with rust, rust will be generated in a short period of time.

## Storage Precautions

- 1) If stored in a chemical atmosphere such as acid, alkali, salt, organic gas, sulfur, etc., it may cause deterioration of solderability, so avoid storing in a chemical atmosphere.
- 2) To avoid the influence of moisture, dust, etc., please avoid direct placement on the floor.
- 3) Avoid storing the product where it is exposed to direct sunlight, heat, or vibration.
- 4) If the product is stored for a long time after unpacking and opening, the solderability may deteriorate depending on the storage conditions. Use immediately after unpacking and opening.
- 5) Dropping the product may cause cracks in the ceramic element inside the product, so please store and handle it in a state where it does not fall easily.
- 6) Store in a desiccator immediately after opening.

## Packaging

Quantity of one plastic bag	600 pieces
Quantity of tray	6 bags = 3600pcs
Box (5 bundles)	18,000 pieces



### Specifications Revisions

Revision	Description	Date	Approved
A	RELEASED FROM ENGINEERING	2/12/2024	NK

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.