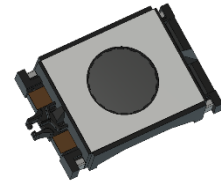




# PUIaudio



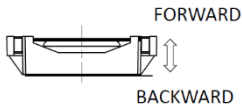
Data Sheet

HD-VA3222

## Features:

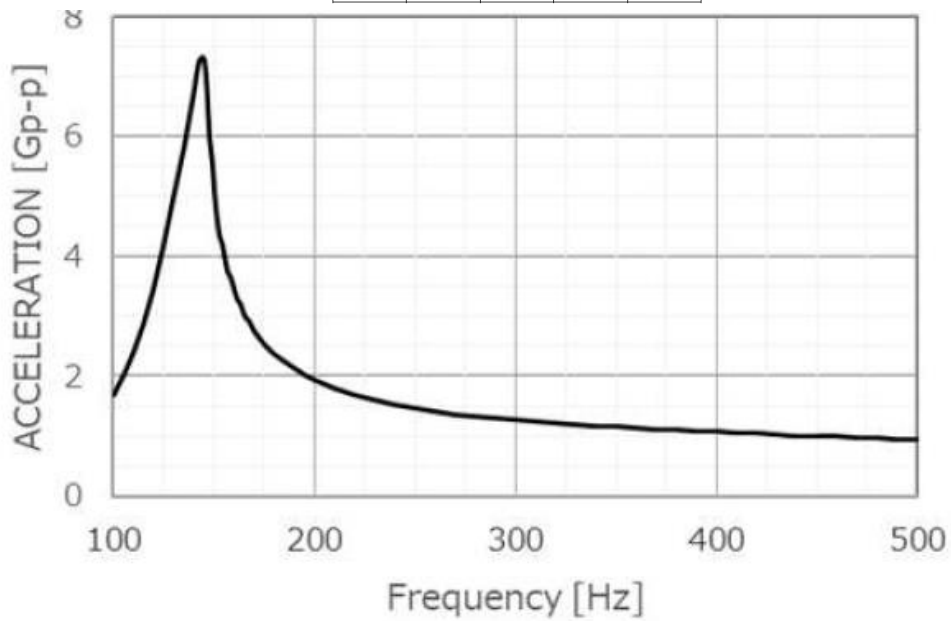
- Fast response times over a wide frequency range
- Maximum acceleration of 2.52 Gp-p measured at 133Hz
- Compact, flat design allows for a variety of implementations

## Specifications

Parameters	Values				Units
Max Input Voltage	1.5				V <sub>rms</sub>
DC Resistance	8.3				Ohms
Nominal Impedance	8.4 ± 0.9				Ohms
Resonant Frequency	133 ± 13				Hz
Frequency Range	80 ~ 500				Hz
Max Acceleration (@133 Hz)	2.52				Gp-p
Frequency Response Characteristics ( @ 0.5V)	133 Hz	300 Hz	400 Hz	500 Hz	Gp-p
	2.52	0.41	0.33	0.28	
Rise Time 0-90%	46				ms
Fall time 100-10%	36				ms
Polarity					-
Environmental Compliances	RoHS/REACH				-
Weight	8.5				Grams
Storage Temperature	-40 ~ +105				°C
Operating Temperature	-40 ~ +85				°C

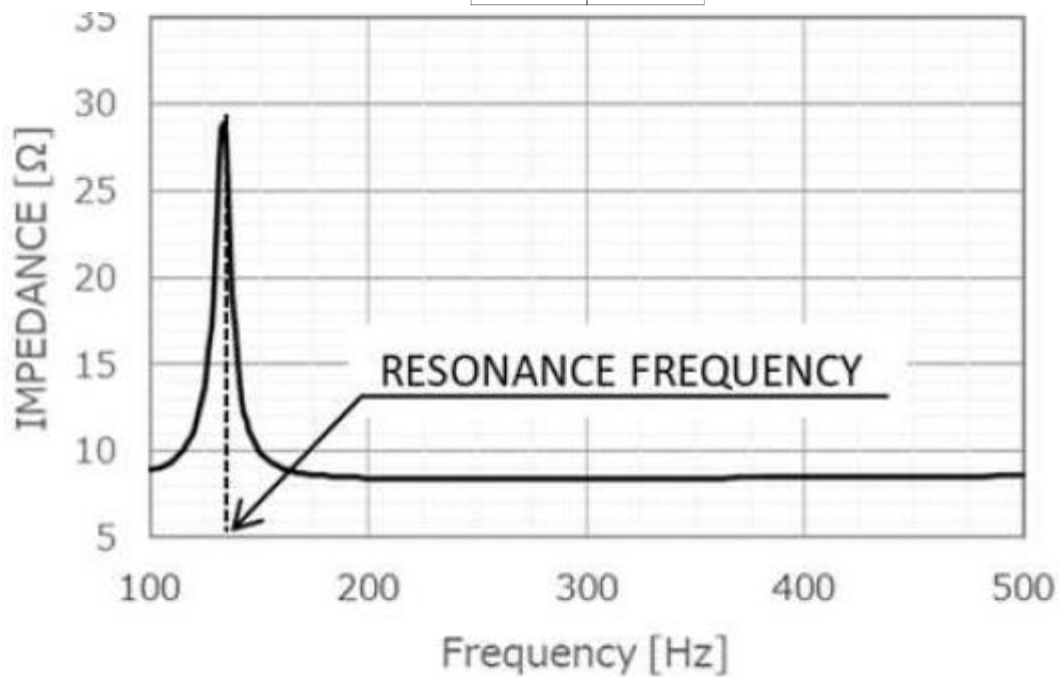
## Acceleration Frequency Response

Fa [Hz]	Fa [Gp-p]	300Hz [Gp-p]	400Hz [Gp-p]	500Hz [Gp-p]
133	2.52	0.41	0.33	0.28

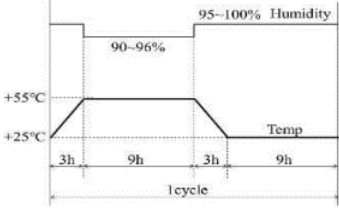
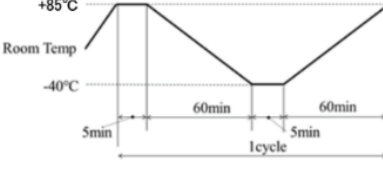


## Impedance Frequency Response

Resonance Frequency [Hz]	300Hz [ohm]
132	8.4

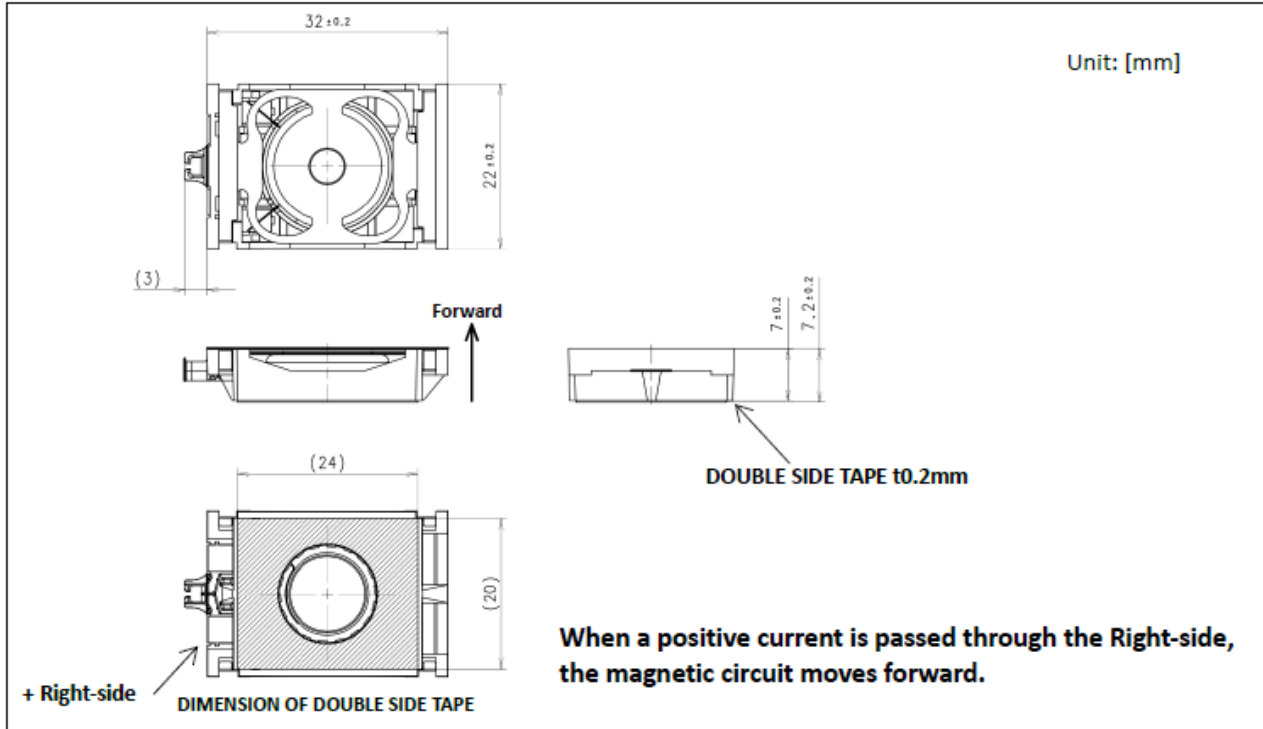


## Reliability Testing

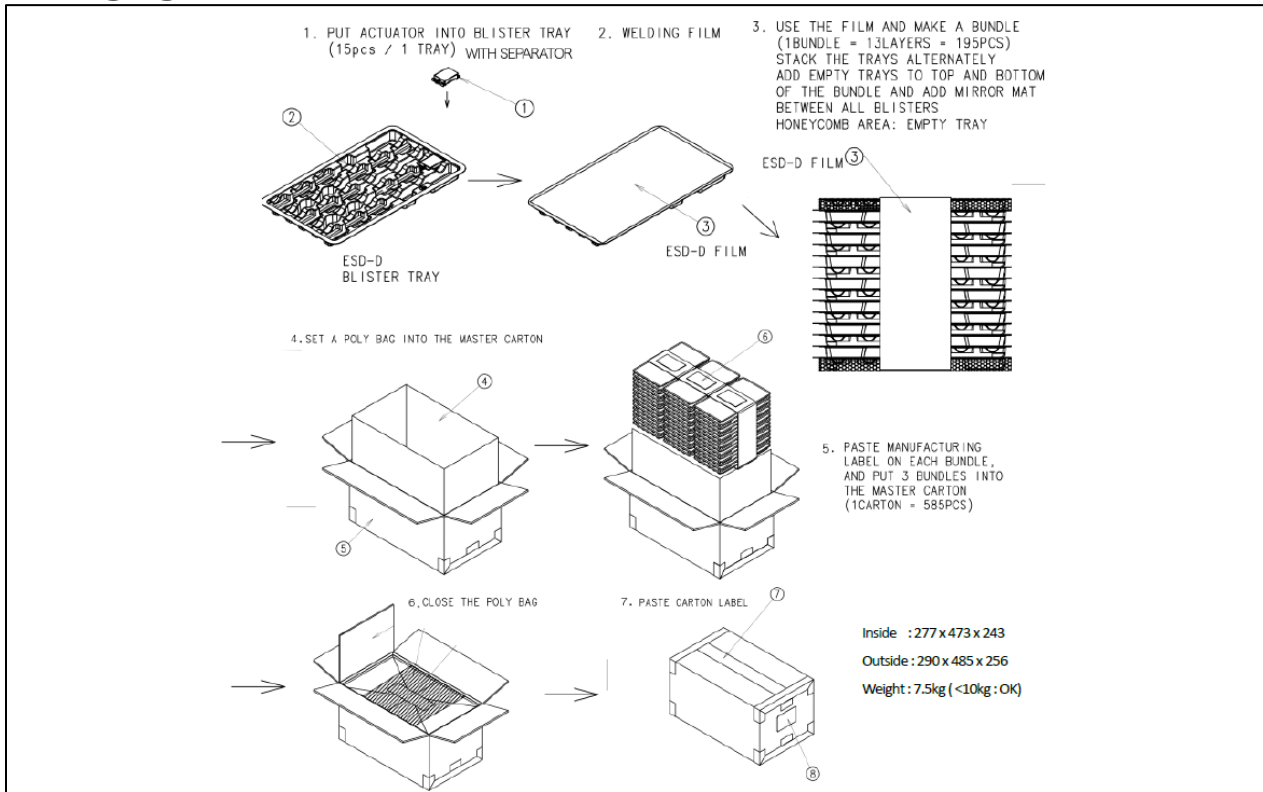
Type of Test	Test Specifications	
Damp Heat Test	Temperature: +55°C Duration: 6 cycles (144 hrs.) Input: 1.5V sine wave, 133 Hz (Fo)	 <p>The graph shows a temperature profile (Temp) and a humidity profile (Humidity) over one cycle. The temperature starts at +25°C, ramps up to +55°C over 3 hours, stays at +55°C for 9 hours, ramps down to +25°C over 3 hours, and stays at +25°C for 9 hours. The humidity starts at 90-96%, ramps up to 95-100% over 3 hours, stays at 95-100% for 9 hours, and then returns to 90-96% over 3 hours. The total duration of one cycle is 36 hours.</p>
High Temperature Endurance Test	Temperature: +85°C Duration: 1478 hours Input: 1.5V sine wave, 133 Hz (Fo)	
Low Temperature Test	Temperature: -40°C Duration: 48 hours Input: 1.5V sine wave, 133 Hz (Fo)	
Temperature Cycle Testing	Duration: 540 cycles (1170 hrs.) Cycle Operation: 2°C / min. Input: 1.5V sine wave, 133 Hz (Fo)	 <p>The graph shows a temperature profile over one cycle. It starts at Room Temp, ramps up to +85°C over 5 minutes, stays at +85°C for 60 minutes, ramps down to -40°C over 60 minutes, stays at -40°C for 5 minutes, and then ramps back up to Room Temp over 60 minutes. The total duration of one cycle is 235 minutes.</p>
Drop Test	Drop from a height of 1m to the concrete ground one time in each direction XYZ	

**Acceleration frequency characteristics shall be within tolerance after each test. Adhesive tape shall remain undisturbed with less than 10N of force applied.**

## Dimensions



## Packaging

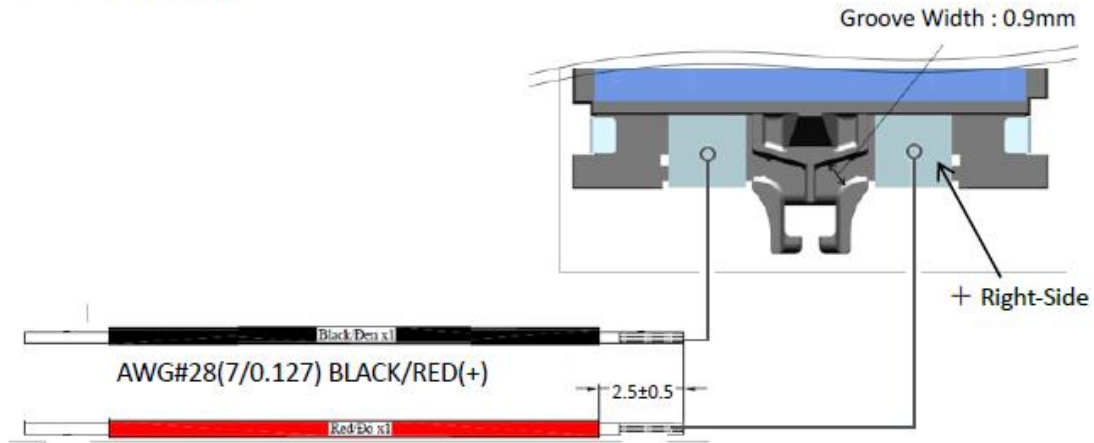


No.	Part name	No.	Part name
①	Actuator with separator	⑤	Master carton
②	Blister tray	⑥	Manufacturing label
③	Cover sheet (Film)	⑦	Security tape
④	Poly bag	⑧	Carton label

## Soldering Recommendations

Recommended Cable Spec : AWG#28

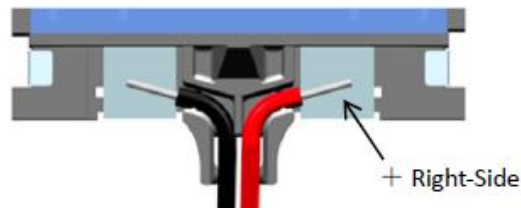
推奨ケーブル : AWG#28



### Recommended Procedure for Cable Assembly

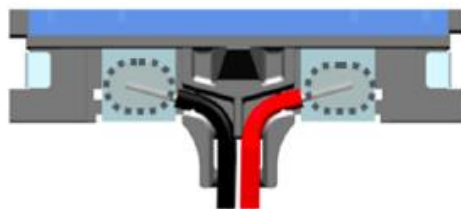
#### Step1:

Place two Cables to the grooves of Frame, and put the cable conductors on the terminals of Frame.



#### Step2:

Soldering the cable conductors with the terminals.



#### Step3:

Hook cables as shown below, and apply a glue to fix the cables. It may help to prevent the conductor break at soldering area.

