



PUIaudio



Data Sheet

HD-EMC0503-LW27

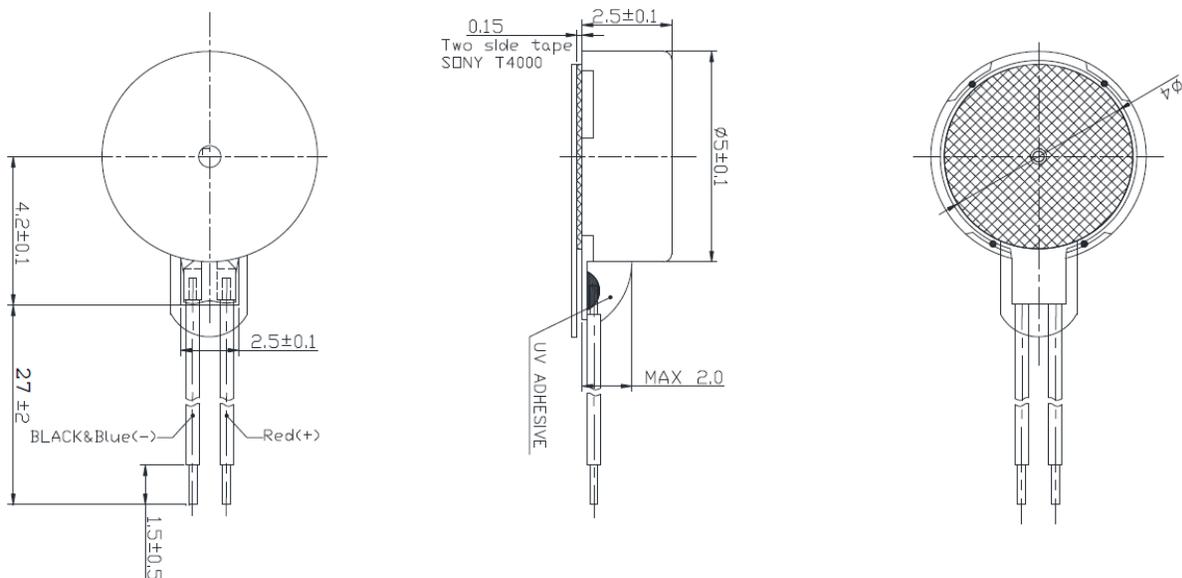
Features:

- 85mA rated current
- 10,000 rpm rated speed
- Coin style housing and solder pad contacts for easy implementation.
- Brushless motor

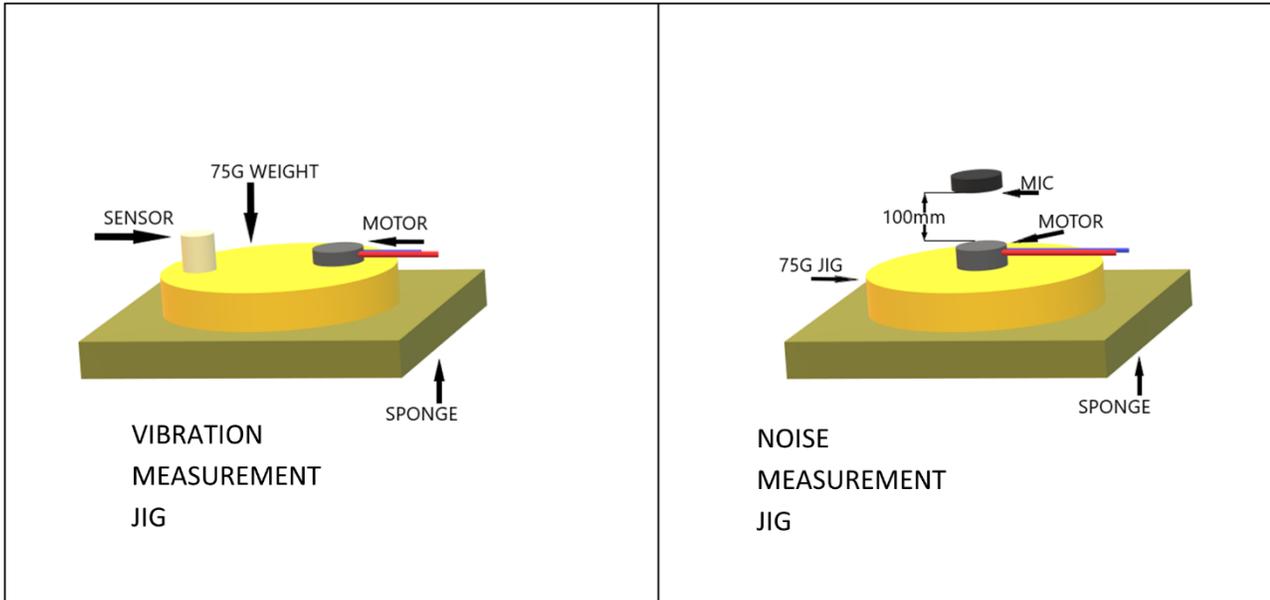
Specifications

Parameters	Values	Units
Input Voltage	3.0	V _{DC}
Operating Voltage Range (DC)	2.7 ~ 3.3	V _{DC}
Starting Voltage	2.5	V _{DC}
Direction of Rotation	CW	-
Rated Speed Rated Voltage, Rated Load, Motor Fixed	10,000 ± 3,000	RPM
Rated Load Current Maximum at 3.3 V _{DC} , Rated Load, Motor Fixed	85	mA
Starting Current Maximum at 2.7 V _{DC} , Rotor Locked	170	mA
Mechanical Noise	≤ 50	dB
Weight		Grams
Storage Temperature	-40 ~ +85	°C
Operating Temperature	-20 ~ +70	°C
Environmental Compliances	RoHS/REACH	-

Dimensions



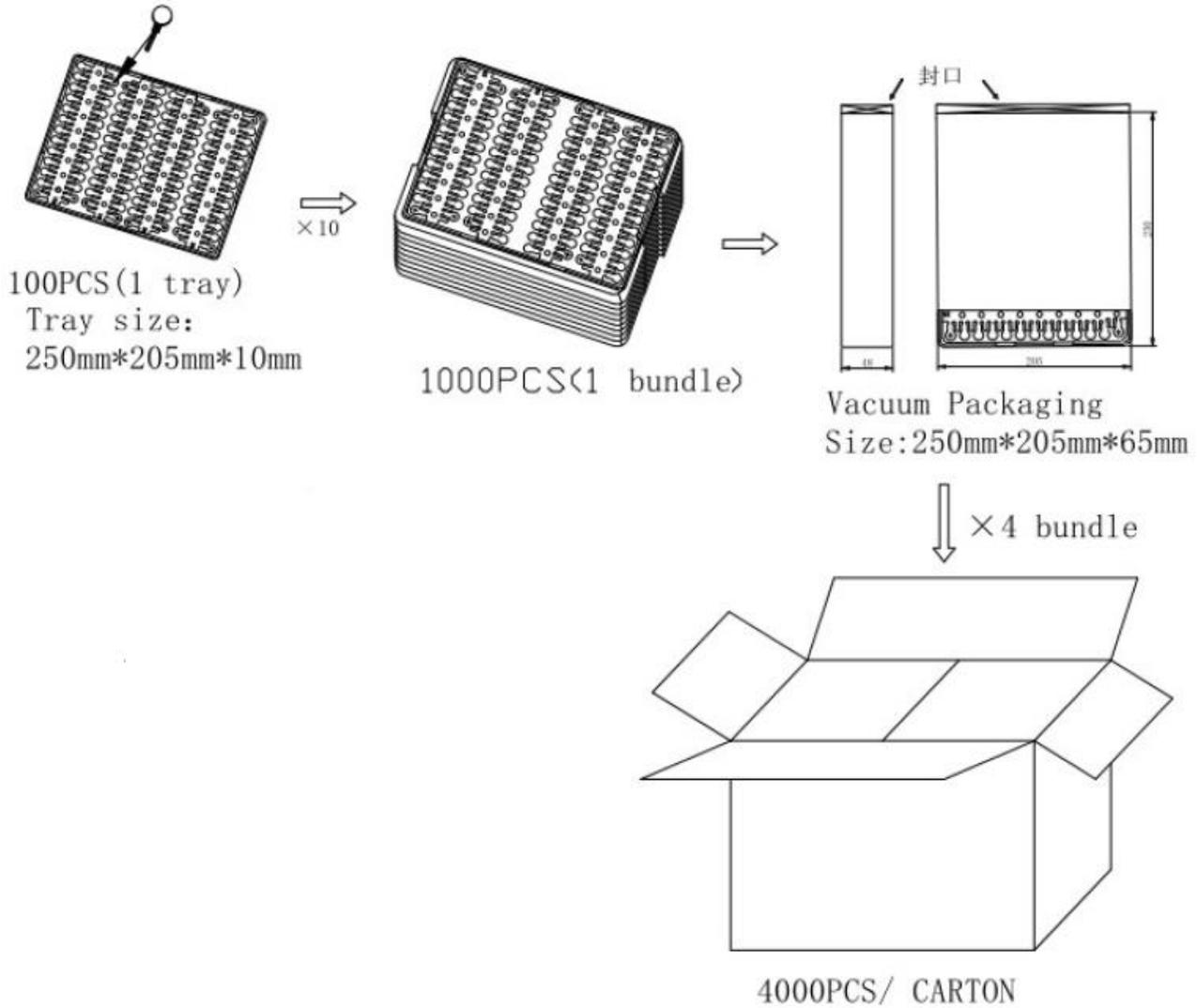
Measurement Methods (Standard Jig)



Reliability Testing

Type of Test	Test Specifications	Judgement
Life Test	At rated voltage (3V): Cycle: 2s on, 1s continuous Cycle Count: 500,000	Allow device to rest 4 hours after each test. The following specifications must be met: <ol style="list-style-type: none"> 1. Rotating speed (initial $\pm 30\%$) 2. Rated Load Current (initial $\pm 30\%$) 3. Starting Voltage (2.5V Max)
High Temperature Test	Temperature: $+80^{\circ}\text{C}$ Test Duration Time: 96 hours	
Low Temperature Test	Temperature: $-40\pm 2^{\circ}\text{C}$ Test Duration Time: 96 hours	
Humidity Test	Temperature: $+40^{\circ}\text{C}$ Relative Humidity: 90~95% Test Duration Time: 96 hours	
Thermal Shock Test	Temperature Cycle: -40 to $+85^{\circ}\text{C}$ Cycle Time: 2 hours Test Repetition: 50 cycles (100 hours total)	
Vibration Test	Vibration: 10 ~ 55 Hz, 2.2G acceleration Test Axis: XYZ Test Repetition: 10 minutes per axis (30 minutes total)	
Drop Test	Drop Condition: 1.5m onto iron plate at weight 100g Test Repetition: 1 time per side (6 total)	

Packaging



Specifications Revisions

Revision	Description	Date	Approved
A	RELEASED FROM ENGINEERING	12/13/2024	JD

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.