



产品规格书

PRODUCT SPECIFICATION

客户名称Buyer Name	
客户料号Buyer Part No.	
客户承认签章 Buyers Approval & Signatures	

文件编号Spec No.	S-325271	版本	A/0
品名描述 Product Description	BLDC Coin Vibration Motor		
型号Part No.	W0825AB001G		
送样日期Date			
设计Designed by	审核Checked by	批准Approved by	
陳满	陈满	陈满	
2019.3.18	2019.3.18	2019.3.18	

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				Date	2019.3.18
Standard	0	Product Name	BLDC Vibration Motor	Rev. Date	

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1. Revision History

Rev. No.	Date	Description	Designed	Checked	Approved
0	2019-3-18	released	SM WON		Wong

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2. Application

This specification applies to W0825AB001G brushless type vibration motor.

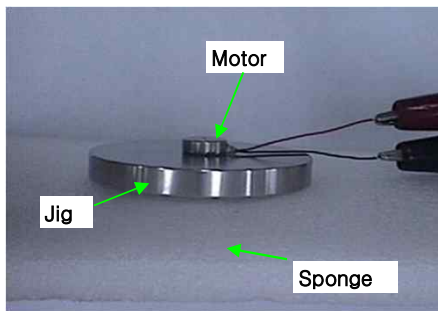
3. Standard Operating Condition

No.	Item	Specification
3-1	Operating Voltage Range	DC 2.5V ~ 3.6V
3-2	Storage Temperature Range	-40~+85°C
3-3	Operating Temperature	-20~+60°C However, there is decrease of rated load speed of the section 7-3 at -20°C compared to +25°C.
3-4	Operating Position	All Direction

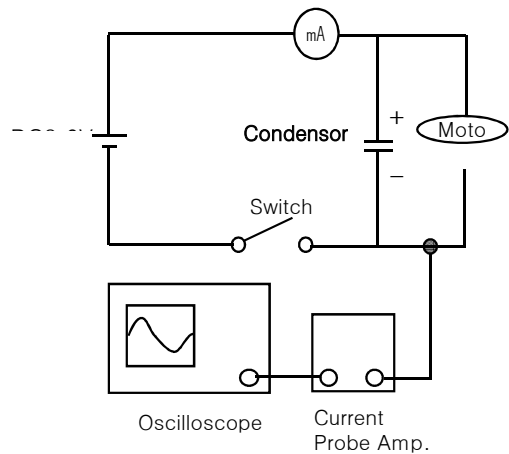
4. Standard Measurement Condition

No.	Item	Specification
4-1	Temperature	20±5°C
4-2	Humidity	65%±15% RH
4-3	Measurement Voltage	DC3.0V

4-4 Measuring Method



Standard Measurement State



Inspection Circuit Diagram

- Jig : Φ50×t6.5 [Steel; (SUS303 or SUS304)]
- Weight : 100g
- Motor shall be fixed on Jig by adhesive tape(3M 9448HK).

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5. Judgment Environmental Condition

No.	Item	Specification
5-1	Temperature	20±5°C
5-2	Humidity	65%±15%RH

6. Test Tolerance

Test set-ups and equipment shall be capable of maintaining following condition, unless otherwise specified.

No.	Item	Specification
6-1	Room Temperature & Humid	20±15°C/65±20%RH
6-2	Test Chamber Temperature	Limits ±3°C
6-3	Voltage	Limits ±0.15V

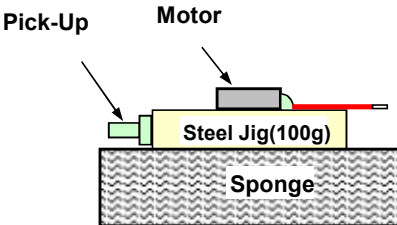
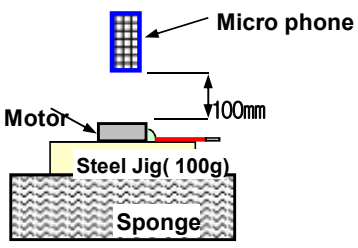
7. Electrical Characteristics

No.	Item	Test Condition	Specification
7-1	Rated Voltage		DC 3.0V
7-2	Rotating Direction	[Red Wire (+), Black Wire(-)]	CW
7-3	Rated Load Speed	It is based on the standard measurement condition of the section 4.	15,000 ± 4,000 rpm
7-4	Rated Load Current	It is based on the standard measurement condition of the section 4.	90 mA max
7-5	Starting Current	It is based on the standard measurement condition of the section 4.	175 mA max
7-6	Starting Voltage	Motor On/Off test based on the standard measurement condition of the section 4-1, 4-2, and 4-4.	DC 2.6 V max
7-7	Insulation Voltage	Measured between terminal and case with DC100V Megger.	

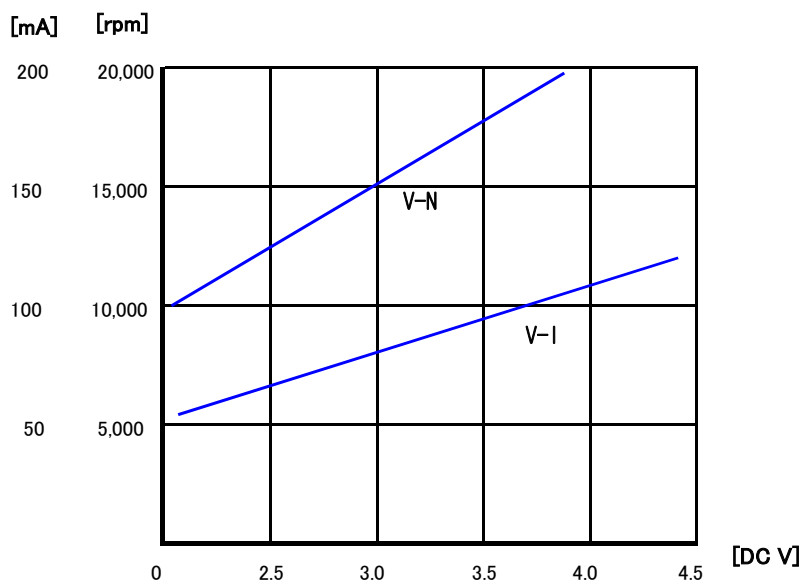
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8. Mechanical Characteristics

No.	Item	Test Condition	Specification
8-1	Vibration Force	 <p>- Motor shall be fixed on Jig by adhesive tape.</p>	It is referred to the rated load speed of the section 7-3 (reference) (3.0 m/s ² MIN)
8-2	Mechanical Noise	 <p>- Background Noise : 24dB MAX - Motor shall be fixed on Jig by adhesive tape.</p>	50dB MAX
8-3	Weight		about 0.95g

9.Characteristic Graph



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10. Reliability Test

No.	Item	Test Condition	Specification												
10-1	Room Temperature & Humidity Life Test	<table border="1"> <tr> <td>Item</td> <td>Room Temp. & Humi. L/T</td> </tr> <tr> <td>Voltage</td> <td>DC 3.0V</td> </tr> <tr> <td>Temperature</td> <td>20±5°C</td> </tr> <tr> <td>Humidity</td> <td>65±15% RH</td> </tr> <tr> <td>Life cycles</td> <td>1,000,000 cycles</td> </tr> <tr> <td>Duty Cycle</td> <td>0.5 sec ON /0.5 sec OFF</td> </tr> </table> <p>Motor shall be fixed on Jig by adhesive tape. (Refer to the section 4-4)</p>	Item	Room Temp. & Humi. L/T	Voltage	DC 3.0V	Temperature	20±5°C	Humidity	65±15% RH	Life cycles	1,000,000 cycles	Duty Cycle	0.5 sec ON /0.5 sec OFF	<p>-Rated Load Speed: Initial value +40, -20%</p> <p>-Rated Load Current: Initial value±30%</p> <p>-The others:</p> <p>Conform to the section 7-6 and 7-7.</p>
Item	Room Temp. & Humi. L/T														
Voltage	DC 3.0V														
Temperature	20±5°C														
Humidity	65±15% RH														
Life cycles	1,000,000 cycles														
Duty Cycle	0.5 sec ON /0.5 sec OFF														
10-2	Low Temperature Storage Performance	Exposed to -40°C for 96 hours and then room temperature for 4 hours.	<p>-Rated Load Speed: Initial value±30%</p> <p>-Rated Load Current: Initial value ±30%</p> <p>-The others:</p> <p>-Conform to the section</p>												
10-3	High Temperature Storage Performance	Exposed to +85°C for 96 hours and then room temperature for 4 hours.	7-6 and 7-7.												
10-4	High Temperature and Humidity Storage Performance	Exposed to +60°C, 95%RH for 96 hours and then room temperature for 4 hours.	-No scar, rust, stain, or deformation by visual inspection.												
10-5	Thermal Shock Test	<p>Total 100cycles at -40°C and +85°C for 30 minutes each (1cycle=1 H)</p> <p>Temperature Change Time < 5min</p> <p>Motor shall be measured after exposure at room temperature for 4 hours.</p>													

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10. Reliability Test

No.	Item	Test Condition	Specification
10-6	Drop Test	Dummy set (about 150g) motor shall be dropped onto concrete plate . 3 times each side of 6 directions from a height of 150 cm, total 18 times.	-Rated Load Speed: Initial value±30% -Rated Load Current: Initial value ±30% -The others: -Conform to the section
10-7	Vibration Test	1) Dummy set motor shall be subjected to sine wave of 10Hz~500Hz each of 2 hours. acceleration : 1 . 5 mm or 1 4 . 7 m/s ² Direction : x,y,z (each 15 minutes) 2) Dummy set motor shall be subjected to sine wave of 33.2Hz each of 3 hours. acceleration : 43.2m/s ² Direction : x,y,z (each 15 minutes)	7-6 and 7-7. -No scar, rust, stain, or deformation by visual inspection.

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11. Caution

No.	Item	Specification
11-1	Operating Range	- When using on the operating condition different from a standard, a problem can be generated to the performance and the life of a product.
11-2	Storage	- Temperature 5~30°C, Humidity 60% Max.
11-3	Motor Handling	<ul style="list-style-type: none"> - To handle the motor, hold the case softly. - Do not bring a magnetized object or attracted object by the magnet of motor, or such object may deteriorate a performance of motor. - At the time of power input short to the motor due to mis-operating, Drive IC of the motor inside can be damaged. To avoid this problem, please add capacitor of 2uF or more between the power line in parallel with the motor. - Supplying voltage more than DC4.5V can make IC out of function.

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12. Specificification Change

Even when there is any change to this specification, change application report which has the information of details of the change, lot of product, and etc shall be presented to customer before that change being carried out. And mutal discussion may be necessary before the change being corried out.
Revision history shall be recorded on to the specification sheet when the change record and approval may be required.

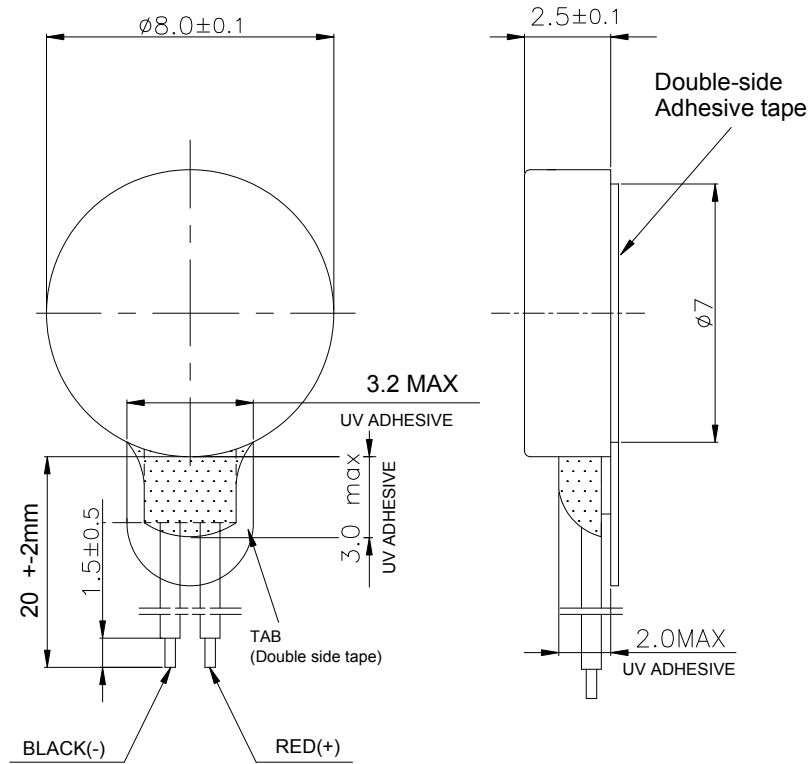
13. Safety standard

Not applicable

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14. Specification Draw

REV	NO.	CONTENTS	ENGINEER	APPROVER	DATE(yy/mm/dd)
△1	1				



3		LEAD WIRE	UL1571#32	1		
2		RUBBER		1		
1		Vibrator	W0825AB001G	1		
NO.	PART NO.	PART NAME	MATERIAL	QTY	FINISH	REMARK
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS, AND TOLERANCE ARE AS FOLLOWS:						
GENERAL TOLERANCE(±)		UNIT mm		SIZE A4	SCALE 5/1	SHEET 1/1
m/m		0.2		DESIGNED		DATE (YY/MM/DD)
		ANGULAR TOLERANCE : $\pm 0.5^\circ$		CHECKED		DATE (YY/MM/DD)
JINLONG MACHINERY				APPROVED		DATE (YY/MM/DD)
				PART NAME		VIBRATOR
				DRAWING NO.		