



# KOTL

# JinLong Machinery

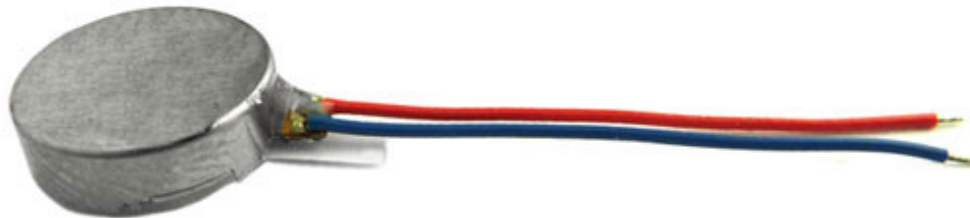
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Part No. **C1034H003F**

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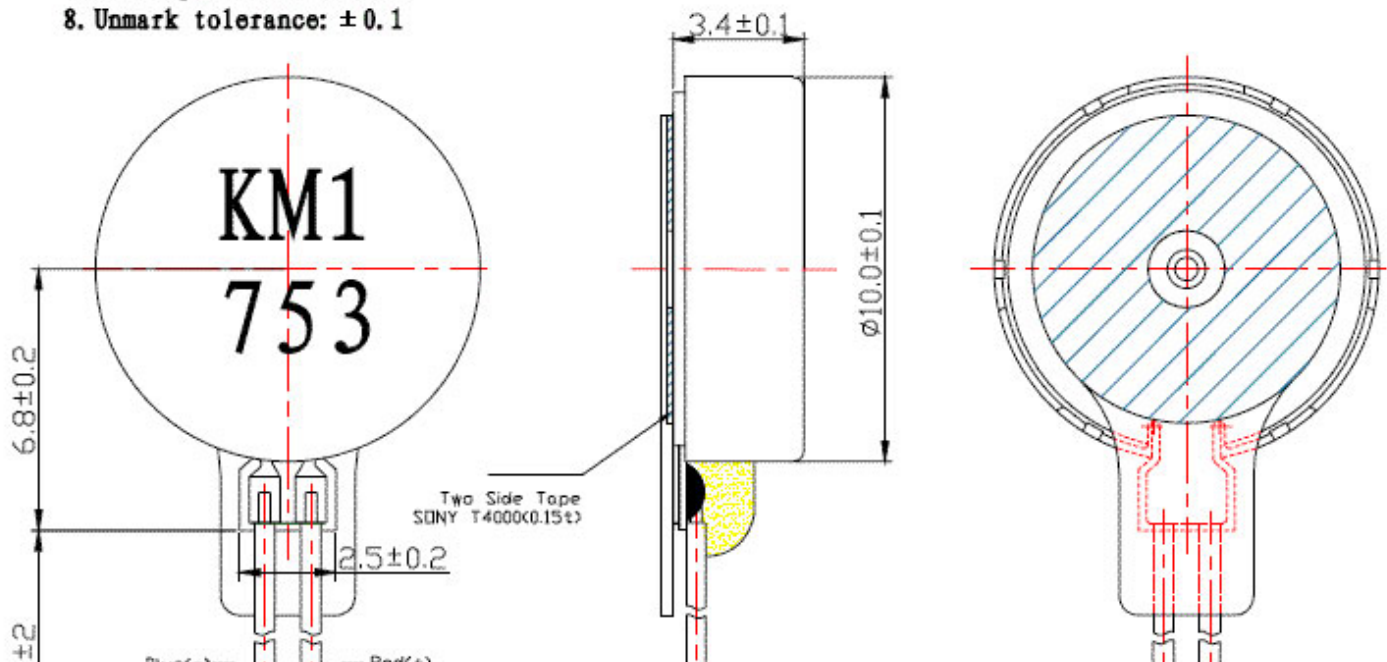


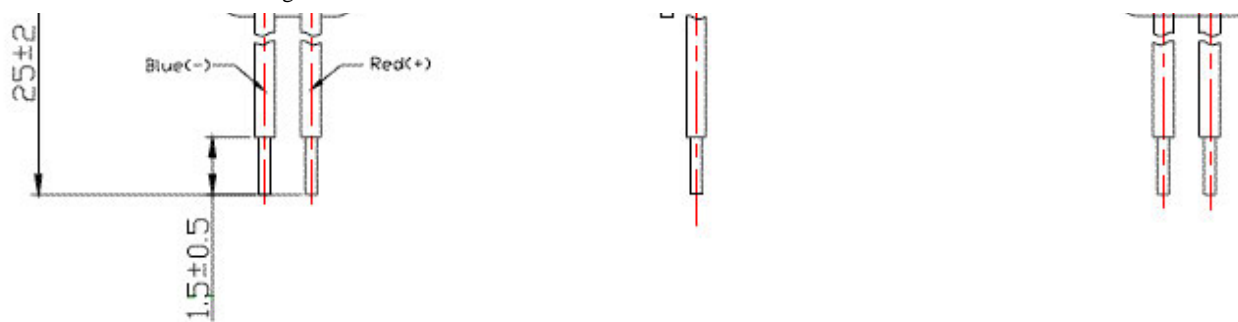
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### Technical requirements

1. Rated voltage: 1.5V
2. Rated current:  
30mA Max (at 1.3V)  
35mA Max (at 1.5V)
3. Rated speed:  
6200-9700rpm (at 1.3V)  
7000-10500rpm (at 1.5V)
4. Starting voltage: 0.9V Max
5. Terminal resistance:  
32Ω ± 15%  
60Ω ± 15%
6. At DC 100V, that lead wire and case thin out  
the insulation resistance: >10MΩ
7. Lead spec: AWG30 UL1571
8. Unmark tolerance: ± 0.1





## 1. Application

This specification applies to flat permanent-magnetic motors DC model **C1034H003F**.

## 2. Operating condition

Item	Specification
2-1	Rated voltage 1.5 V DC
2-2	Operating voltage 1.2~1.8 V DC
2-3	Rotation CW (clockwise) or CCW (counter clockwise)
2-4	Operating environment -20°C ~ 60°C , Ordinary Humidity: 65±20% RH
2-5	Storage environment -30°C ~ 70°C , Ordinary Humidity: 65±20% RH

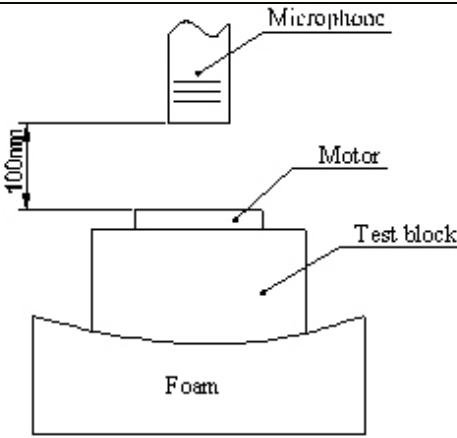
## 3. Conditions of Measurement

Item	Specification
3-1	Temperature 25±3°C
3-2	Humidity 65±20% RH
3-3	Power supply Constant power supply 1.5V

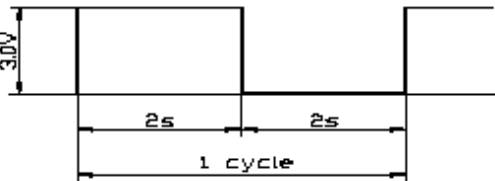
## 4. Electrical characteristics

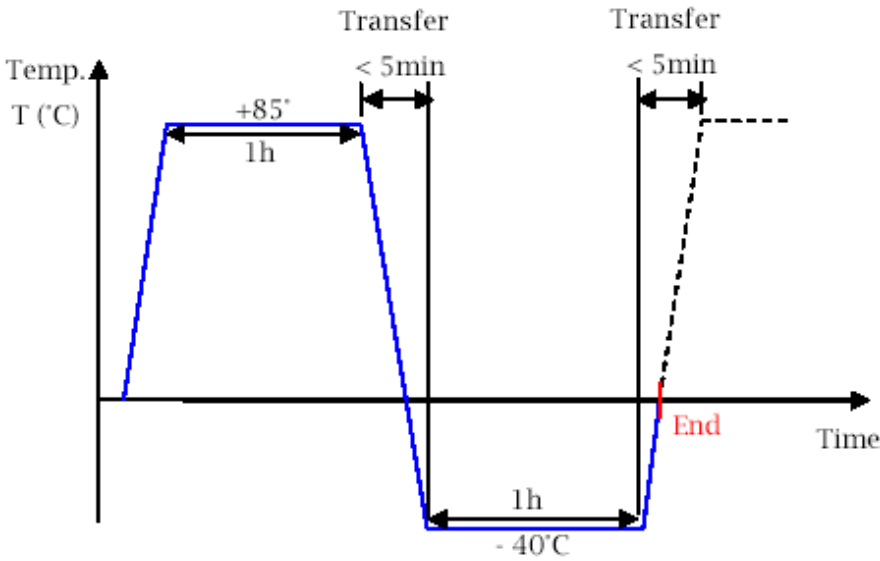
Item	Specification	Condition
4-1	Rated speed 6200~9700rpm ( at 1.3V ) 7000~10500rpm ( at 1.5V )	At rated voltage
4-2	Rated current 30mA Max ( at 1.3V ) 35mA Max ( at 1.5V )	
4-3	Starting current 60mA Max	Motor is rotating at min starting voltage.
4-4	Starting voltage 0.9 V DC Max	Motor is rotating at min starting voltage.
4-5	Insulation resistance 10 MΩ Min	At DC 100 V between lead wire and case.
4-6	Terminal resistance 32 Ω ± 15% (Single posture) 60 Ω ± 15% (Compose posture)	At 25°C

## 5. Mechanical characteristics

Item	Specification
5-1	Bracket deflection strength 9.8 N or more
5-2	Mechanical noise 50dB(A) Max.
	At rated voltage Back ground noise 28dB(A) Max
	 <p>The diagram illustrates the test setup for measuring mechanical noise. A microphone is placed at a distance of 100mm from the motor. The motor is mounted on a test block, which is supported by a foam base.</p>

## 6. Durability characteristics

Item	Specification	Requirements
6-1	<p>Lifetime</p> <p>Rated voltage : 1.5 V DC Test mode: 2s On, 2s Off, as one cycle. Test cycle 50,000 cycles</p>  <p>The diagram shows a square wave pulse representing the test mode. The pulse has a high level of 3.0V, a pulse width of 2s, and a period of 2s. The entire cycle is labeled '1 cycle'.</p>	After the test, motors shall be approved as specified in item 7-1.
6-2	<p>Low temperature exposure</p> <p>Temperature : -30°C Time : 96 h</p>	After 4 hours exposure in ordinary temperature and humidity, motors shall be approved as specified in item 7-2.
6-3	<p>High temp. exposure</p> <p>Temperature : +70°C Time : 96 h</p>	After 4 hours exposure in ordinary temperature and humidity, motors shall be approved as specified in item 7-2.

6-4	Humidity exposure	Temperature : +40°C Humidity : 95%RH Exposure time : 96 h No condensation of moisture	After 4 hours exposure in ordinary temperature and humidity, Motors shall be approved as specified in item 7-2.
6-5	Vibration	Displacement : 1.5mm (p-p) Frequency: 10~55Hz Acceleration: 22m/s <sup>2</sup> Period: 10 Minutes log sweep (10~55~10Hz) Condition : Samples shall be applied for a period of 10 minutes in three axial direction.	After the test motors shall be approved as specified in item 7-2.
6-6	Free fall	Test mode: Set the motor to the approximately 100 g (include the motor) and drop it onto the concrete floor. Height :1.5 m Direction : ±x, ±y, ±z Number of times: Each 3 times	After the test motors shall be approved as specified in item 7-2.
6-7	Thermal shock	Test mode: 1 hour at -40°C, 1 hour at +85°C, as one cycle. Transfer time between extreme temperatures: < 5/5min/Test cycle: 15 cycles  	After the test motors shall be approved as specified in item 7-2.

**7. Requirements**

Item	Requirements
7-1 Table A	1) Rated speed: No lower than -30% of initial data; No more than +50% initial data. 2) Rated current: No lower than -30% of initial data; No more than +30% initial data. 3) Terminal resistance: No lower than +15% of initial data; No less than -15% initial data. 4) Starting voltage: 1.1V DC Max 5) Insulation resistance : 10 MΩ Min

7-2	Table B	1) Rated speed: No more than +20% of initial data; No less than -20% initial data. 2) Rated current: No more than +20% of initial data; No less than -20% initial data. 3) Starting voltage: 1.1V DC Max 4) Terminal resistance: No more than +15% of initial data; No less than -15% initial data.
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## 8. Caution for Use

8-1 Unless it is used in accordance with the specifications ,the performance and life may be considerably reduced . Due attention should be paid to voltage and range for use.

8-2 Advice uses this motor within 6 months as a voiding as possible.

Avoid use or save the motor in the following environment.

1. High temperature and high humidity area.
2. Corrosive gas such as H<sub>2</sub>S•SO<sub>2</sub>•NO<sub>2</sub>•Cl<sub>2</sub>.
3. Dusty area.

8-3 Due attention must be paid to the handling and working environments because such objects as iron powder if attracted by the motor magnet, will cause noise, characteristic deterioration thus reducing the reliability.

8-4 Please confirm enough no problems of standards and laws and ordinances on your cellular phone.

8-5 To handle the motor ,hold the motor case softly.

8-6 Rust of plate (steel) and similar edge should be OK.