



## Part No. **C1034B018F**

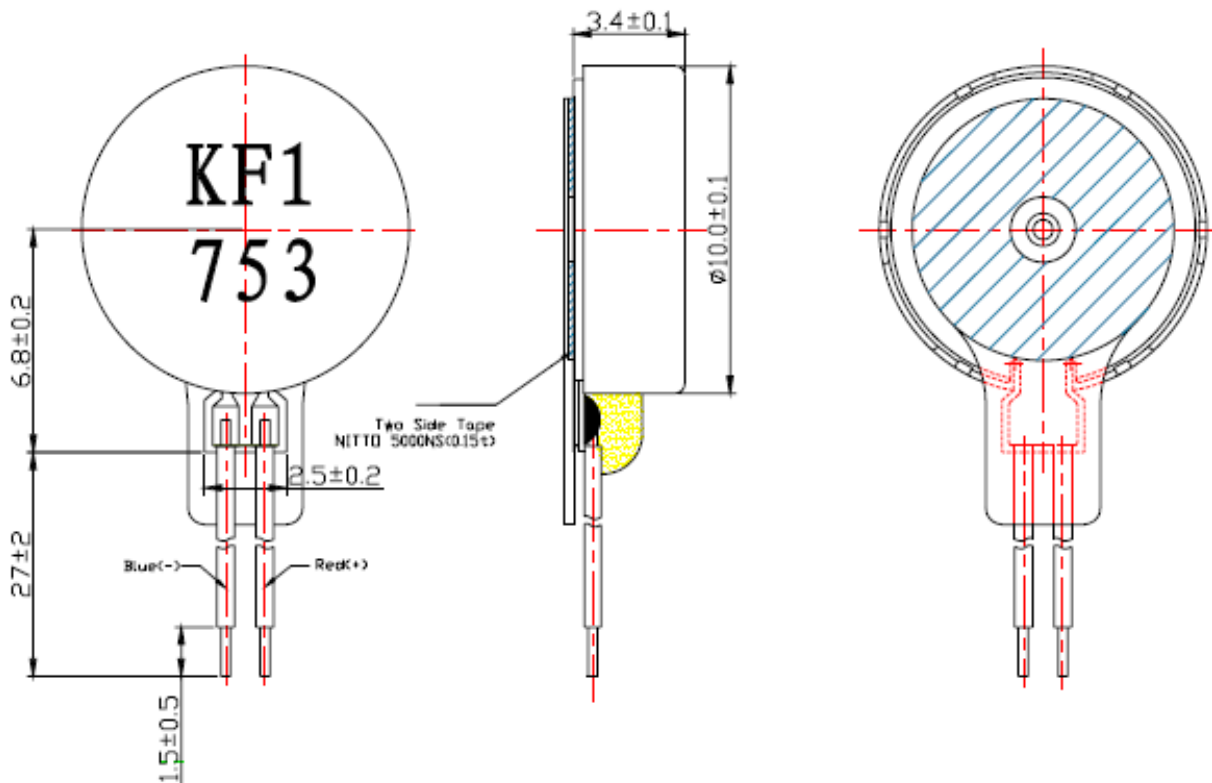
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### Technic requirment

1. Rate voltage: 3.0V
2. Rate current: 80mA Max
3. Rate speed: 9,000rpm Min
4. Starting voltage: 2.3V Max
5. Terminal resistance:
  - 32 $\Omega$ ±15% (Single phase)
  - 63 $\Omega$ ±15% (Double phase)
6. At DC 100V, that lead wire and case thin out the insulation resistance: >10 $\Omega$
7. Lead spec: AWG32 UL1571
8. Unmark tolerance: ±0.1



## 1. General Scope of Application

This specification applies to coin type permanent-magnetic motors DC model **C1034B018F**.

## 2. Operating condition

Item	Specification
2-1	Rated voltage 3.0 V DC
2-2	Operating voltage 2.7~3.3 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

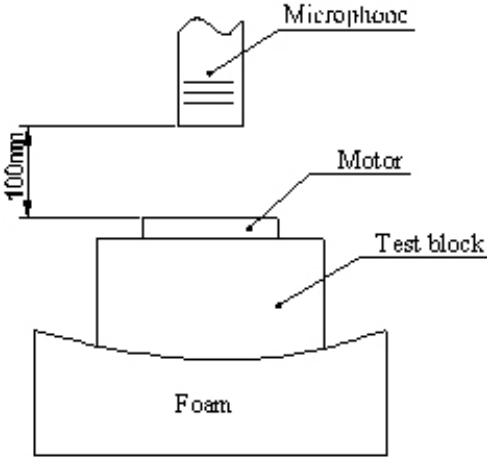
## 3. Conditions of Measurement

Item	Specification	Conditions
3-1	Temperature	25±3°C
3-2	Humidity	65±20% RH
3-3	Power supply	Constant Power supply 3.0V

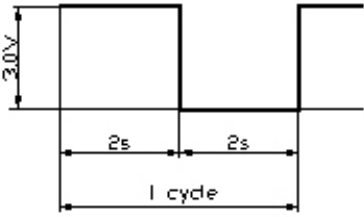
## 4. Electrical Characteristics

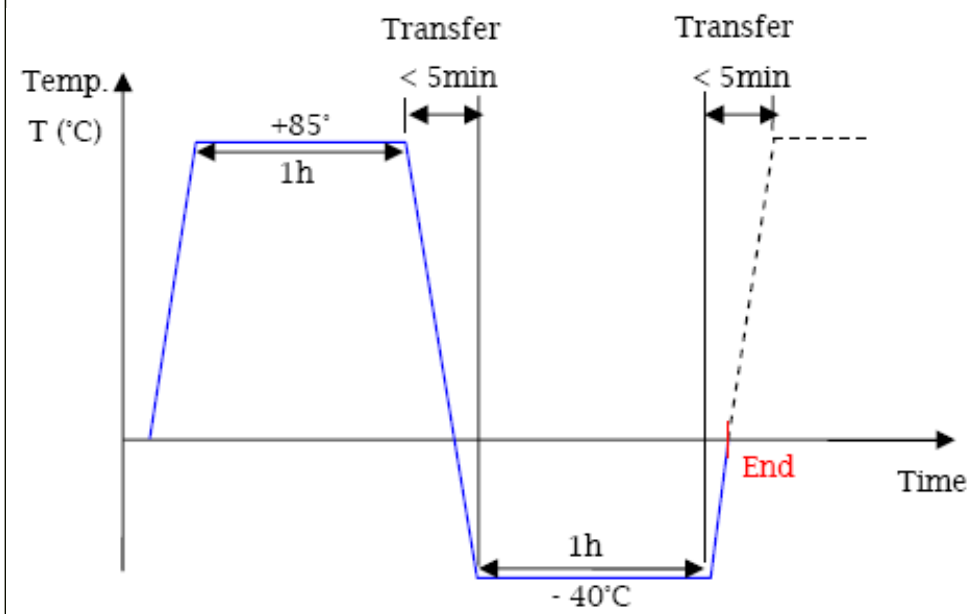
Item	Specification	Condition
4-1	Rated speed	At rated voltage
4-2	Rated current	
4-3	Starting current	Motor is rotating at min starting voltage.
4-4	Starting voltage	
4-5	Insulation resistance	At DC 100 V between lead wire and case.
4-6	Terminal resistance	At 25C°

## 5. Mechanical Characteristics

Item		Specification
5-1	Bracket deflection strength	9.8 N or more.
5-2	Mechanical noise At rated voltage. Back ground noise 28dB(A) Max. <div style="text-align: center; margin-top: 20px;">  <p>The diagram illustrates the mechanical noise test setup. It shows a microphone at the top, with a vertical dimension line indicating a distance of 100mm between the microphone and the motor. The motor is mounted on a rectangular test block, which is itself supported by a larger, wider foam base.</p> </div>	50 dB(A)Max

## 6. Reliability Tests

Item		Specification	Requirements
6-1	Lifetime	Rated voltage: 3.0V DC Test mode: 2s On, 2s Off, as one cycle. Test cycle: 50,000 cycles <div style="text-align: center; margin-top: 10px;">  <p>The timing diagram shows a square wave pulse. The vertical axis is labeled 3.0V. The horizontal axis shows a pulse width of 2s, followed by an off-time of 2s. The total duration of one cycle is labeled as 1 cycle.</p> </div>	After the test, motors shall be approved as specified in item 7-1.
6-2	Low temperature exposure	Temperature : -30°C Time : 96 h	After 4 hours exposure in ordinary temperature and humidity, motors shall be approved as specified in item 7-2.
6-3	High temp. exposure	Temperature : +70°C Time : 96 h	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 directions.	After the test motors shall be approved as specified in item 7-2.
6-6	Free fall	Test mode: Set the motor to a fixture of approx. 100g (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. Judgments after Reliability Tests

Item	Requirements
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7-1	Table A	1)Rated speed: No lower than -30% of initial data; No more than +50% of initial data. 2)Rated current: No lower than -30% of initial data; No more than +50% of initial data. 3)Terminal resistance: No more than +15% of initial data; No less than -15% of initial data. 4)Starting voltage: 2.5V DC Max 5)Insulation resistance: 10•Ω/ 10•Ω Min
7-2	Table B	1)Rated speed: No more than +20% of initial data; No less than -20% of initial data. 2)Rated current: No more than +20% of initial data; No less than -20% of initial data. 3)Starting voltage: 2.5V DC Max 4)Terminal resistance: No more than +15% of initial data; No less than -15% of initial data.

## 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 avoiding 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.