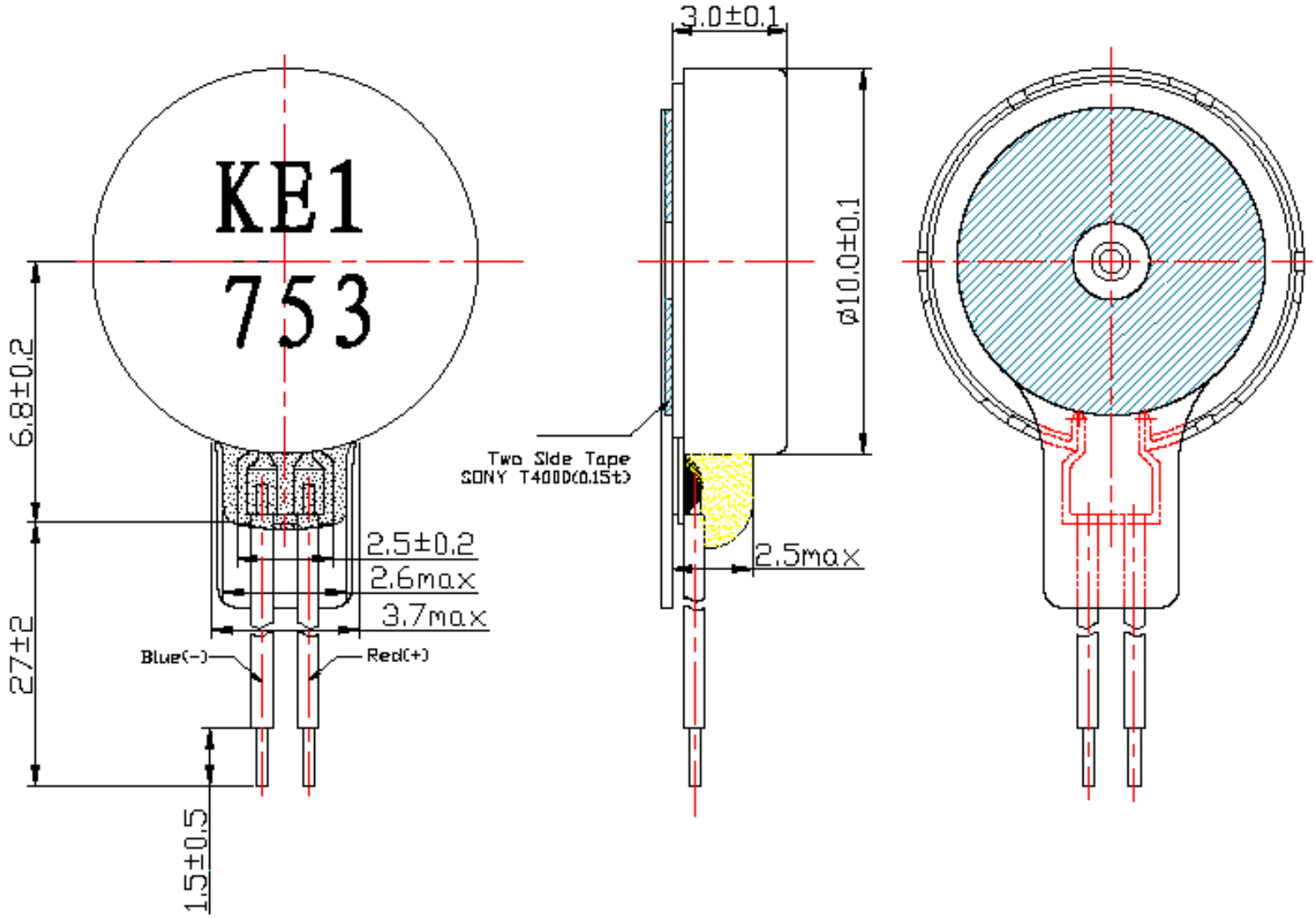
Part No. **C1030B028F** (Old Part Number : C1030L-50)

Technic requirment

1. Rate voltage: 3.0V
2. Rate current: 100mA Max
3. Rate speed: 9,000rpm Min
4. Starting voltage: 2.3V Max
5. Terminal resistance:
   32Ω±15% (Single phase)
   62Ω±15% (Double phase)
6. At DC 100V, that lead wire and case thin out the insulation resistance: ≥10MΩ
7. Lead spec: AWG32 UL1571
8. Unmark tolerance: ±0.1



1. General Description

This specification applies to coin-shape permanent-magnetic motor DC model C1030B028F.

2. Operating condition

Item	Specification	Conditions

2-1	Rated voltage	3.0V DC
2-2	Operating voltage	2.7~3.3V DC
2-3	Direction of vibration	CW (clockwise) or CCW (contrary clockwise)
2-4	Operating environment	-20~+60°C, Ordinary Humidity
2-5	Storage environment	-30~+70°C, Ordinary Humidity

3. Measuring condition

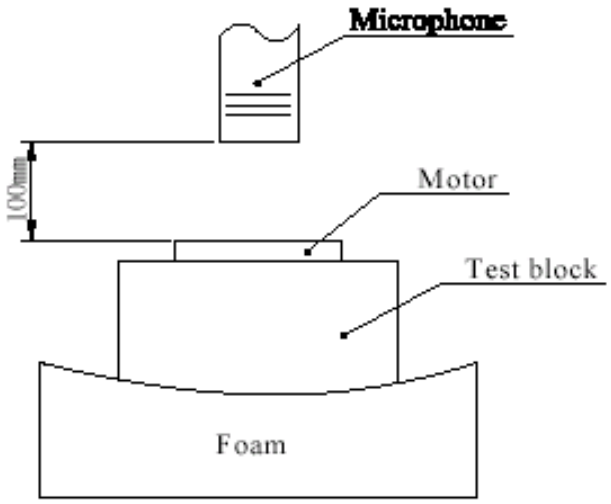
Item	Specification	Conditions
3-1	Temperature	25±3°C
3-2	Humidity	65±20% RH
3-3	Power supply	Constant Power supply 3.0V DC

4. Electrical initial characteristics

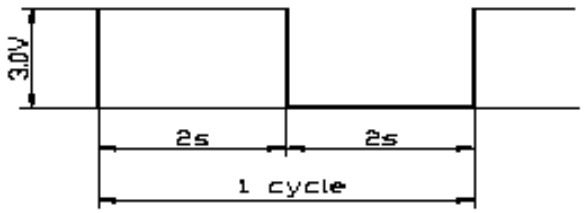
Item	Specification	Conditions
4-1	Rated speed: 9,000 rpm Min	At rated voltage
4-2	Rated current: 100 mA Max	
4-3	Starting current: 120 mA Max	
4-4	Starting voltage: 2.3V DC Max	Motor is rotating at min starting voltage.

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) 62 Ω ± 15% (compose posture)	25°C at 25°C

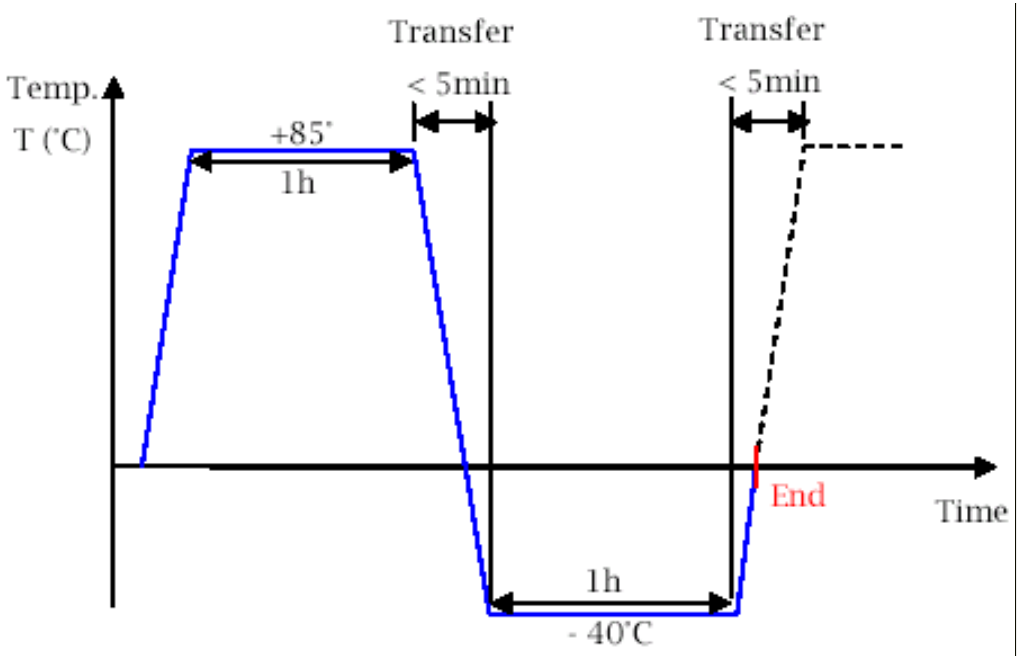
5. Mechanical characteristics

Item		Specification
5-1	Bracket Deflection strength	9.8N or more
5-2	Mechanical noise	50dB (A) Max
	At rated voltage Back ground noise 28dB(A) Max 	

6. Reliability characteristics

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 	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 temperature exposure	Temperature : +70°C Time : 96 h	
6-4	Humidity exposure	Temperature : +40°C Humidity : 95%RH Exposure time : 96 h No condensation of moisture	

6-5	Vibration	Displacement: 1.5mm (p-p) Frequency: 10~55Hz Acceleration: 22m/s^2 Period: 10 Minutes log sweep (10~55~10Hz) Condition : Samples shall be applied for a period of 10 minutes in 3 axial directions.	After the test motors shall be approved as specified in item 7-2.
6-6	Free fall	Set the motor to a fixture of approx. 100g (include the motor) and drop it onto the concrete floor. Height :1.5m 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 4 hours exposure in ordinary temperature and humidity. Motors shall be approved as specified in item 7-2.



7. Post environment

Item		Specification
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 +50% initial data. 3) Terminal resistance: No lower than -15% of initial data; No more than +15% initial data. 4) Starting voltage: 2.5V DC Max 5) Insulation resistance : 10 MΩ Min

7-2	Table B	1) Rated speed: No lower than +20% of initial data; No more than -20% initial data. 2) Rated current: No lower than +20% of initial data; No more than -20% initial data. 3) Starting voltage: 2.5V DC Max 4) Terminal resistance: No lower than -15% of initial data; No more than +15% 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 Avoid use or save the motor in the following environment.

- High temperature and high humidity area.
- Corrosive gas such as H_2S•SO_2•NO_2•Cl_2.
- 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 maganent, will cause noise, characteristic deterioration thus reducing the reliability.

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

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

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

8-7 Because there is error of the measurement equipment, permit the standard of the rotational frequency to ±5 •.