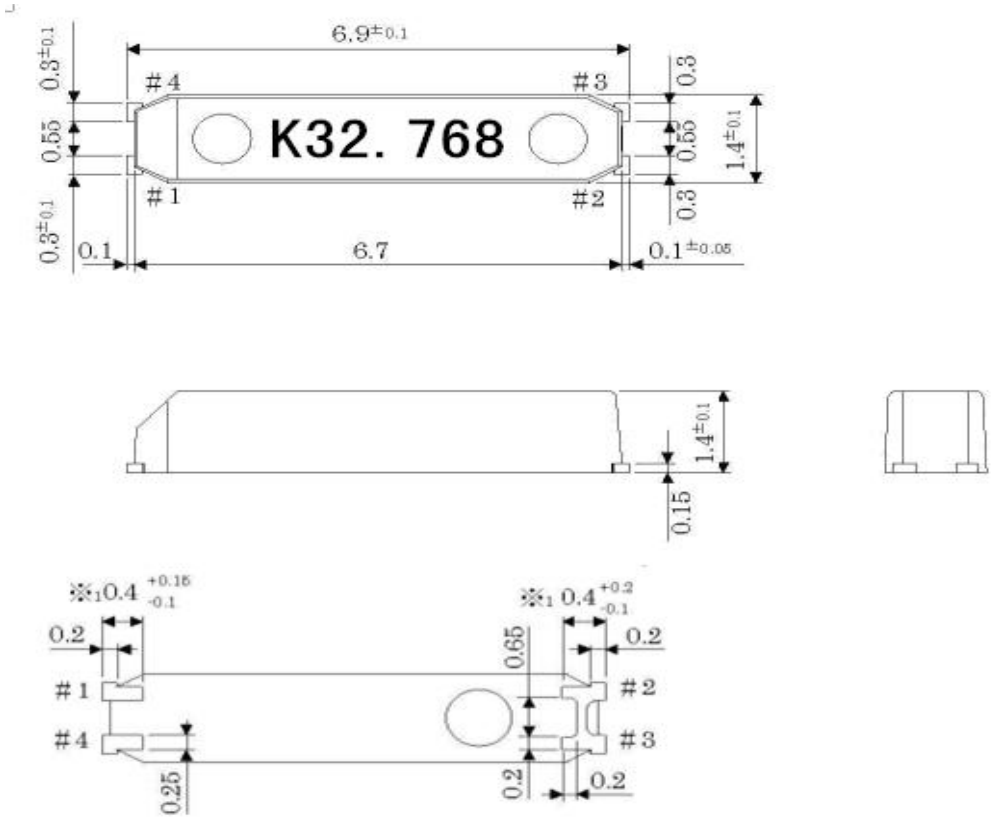
Victorlands **Technical Specification**

Product name	**Quartz crystal unit**
Model	**MC-146/32.768KHz**
Product code	**K7D32768L5Q3B2**
Product parameters	12.5PF/±20PPM
Product reliability	P．2-4
Packing form	P．3

1.ELECTRIC CHARAC:

1. Frequency:	32.768KHZ
2. Holder Type:	M6
3. Frequency Tolerance:	±20ppm at 25℃±5℃
4. Equivalent Series Resistance:	70 KΩMax
5. Storage Temperature Range:	-40℃ TO + 85℃
6. Operating Temperature Range:	-40℃ TO + 85℃
7. Frequency Characteistics Over Temperatnre:	±20ppm -40℃TO +85℃
8. Load Capacitance (CL):	12.5 PF
9. Drive Level:	1.0 uW MAX
10. Shunt Capacitance:	1.35PF MAX
11. Insulation Resistance:	500MΩ Min at D.C.100 V
12. Capacitance ratio	650 max
13. Aging:	±5ppm/Year
14. Marking	K32.768

2.DIMENSION（MM）



3. PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

3-1. Humidity

Subject the crystal at 40℃± 2℃ and 90％ - 95％ RH for 96±4 hours Then release the crystal into the room conditions for 1hour prior to the measurement .

3-2. High Temperature Exposure

Subject the crystal to 85℃± 5℃ for 96±4 hours . Then release the crystal into the room conditions for 1hour prior to the measurement .

3-3. Low Temperature

Subject the crystal to -20℃± 5℃ for 96±4 hours . Then release the crystal into the room conditions for 1hour prior to the measurement

3-4. Mechanical Shock

Drop the crystal randomly onto a concrete floor from the height of 75cm 3 times .

3-5. Temperature Cycling

Subject the crystal to -30℃ for 30 min. followed by a high temperature of +85℃ for 30 min. Cycling shall be repeated 5times with a transfer time of 15sec. at the room

condition . Then release the resonator into the room temperature for 2hours prior to the measurement .

3-6. Vibration

Subject the crystal to vibration for 2hours each in x, y, and z axes with the amplitude of 1.5mm, the frequency shall be varied uniformly between the limits of 10-55 Hz .

3-7. Resistance to Solder Heat

Dip the crystal terminals no closer than 2 mm into the solder bath 260℃±5℃ for 5±1 sec; Then release the crystal into the room temperature for 1hour prior to the measurement .

3-8. Solder Ability

Dip the crystal terminals no closer than 2 mm into the solder bath at 235℃± 5℃ for 3±0.5 sec .more than 95％ of the erminal surface of the crystal shall be covered with fresh solder.

3-9. Lead Fatigue

1) Pulling Test

Weight along with the direction of terminals without any shock 0.5kg for 10±1sec.; The crystal shall no evidence of damage and shall fulfill all the initial electric characteristics。

2) Bending Test

Lead shall be subject to withstand against 90 degree bending at its stem· This operation shall be done towards both direction; The crystal shall no evidence of damage and shall fulfill all the initial electric characteristics。

4. REVIEW OF SPECIFICATION

When something get doubtful with this specifications，we shall jointly work to get an agreement。