Victorlands **Technical Specification**

Product name	**Quartz crystal unit**
Model	**49USSMD/20.250MHz**
Product code	**K2F20250S0Q2A2**
Product parameters	20PF/±20PPM
Product reliability	P．2-5
Packing form	P．4

1.GENERAL

1.1 HOLDER TYPE	49USSMD
1.2 MODE OF VIBRATION	AT CUT
1.3 OSCILLATION MODE	FUND
1.4 TEST FACILITIES	S&A KH-1240
1.5 STORAGE TEMPERATURE	-40℃ TO +85℃
1.6 DRIVER LEVEL	100μW

2.ELECTRICAL PARAMETER

2.1 NORMAL FREQUENCY	20.250 MHz
2.2 FREQUENCY TOLERANCE（25℃±2℃）	±20ppm
2.3 TEMPERATURE STABILITY	±20ppm
2.4 OPERATING TEMPERATURE RANGE	-20℃ TO + 70℃
2.5 LOAD CAPACITANCE	20 PF
2.6 MOTIONAL CAPACITANE	
2.7 SHUNT CAPACITANCE	3PF MAX
2.8 EFFECTIVE SERIES RESISTANCE	40Ω MAX
2.9 INSULATION RESISTANCE	500M OHMS MIN AT DC 100V

3.MECHANICAL PARAMETER

3.1 SOLDERABILITY	95%COVERAGE BY USING 90/10 SOLD AT 245℃ FOR 5 SEC. DIPING AFTER IMMERSION IN ALPHA 611 FLUX FOR 5 SEC.

Ⅰ MECHANICAL ENDURANCE

Provided that measurement shall be carried out after letting it alone in the room temperature for 1 hour.

①SHOCK

Electrical characteristics shall be satisfied after dropping three time from the height of 50 cm onto Hard wooden board .

②VIBRATION

Electrical characteristics shall be satisfied after supplying following Vibration .

(1)VIBRATION FREQUENCY	10—55Hz
(2)REPEATED PERIOD	1—2min
(3)FULL CYCLE	1.5mm P—P
(4)DIRECTION	X.Y.Z
(5)TIME	2hours/each direction

③STRENGTH OF TERMINALS/LEAD—WIRES

-1 PULLING

a)Body of specimen shall be fixed, and 900g of tension weight shall be supplied gradually to axial direction of terminals/lead-wires for 30 sec .

b)After above test a), there is no observation of any visual damages on the specimen.

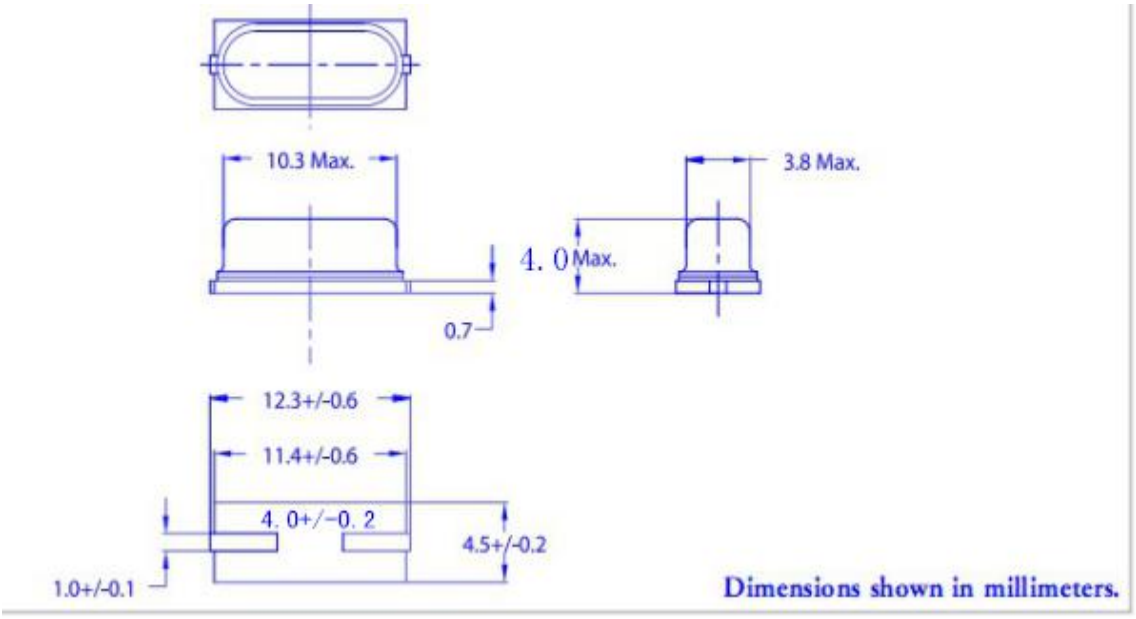
-2 BENDING

a)Body of specimen shall be fixed, and 90degree bending shall be given, being supplied 225gs tension weight .

After that, terminals/lead-wires shall be straightened gradually .

Then the same bending and straightening shall be supplied to the opposite direction in the same axial . (Refer to Fig-1)

b)After above test a), there is no observation of any visual damages on the specimen .



④SEALING TIGHTNESS

There is no observation of gas bubble after specimen put in hot water at +90℃—+95℃ for 5 min .

⑤SOLDERING DIP

Terminals/lead-wires of specimen shall be dipped into solder melted tank at +230℃—±5℃ for 3sec . Dipping depth shall be 2mm from the bottom of specimens body . (After applying ROSIN flux) Soldering portion shall be covered in over 90% of terminals/lead-wires dipped .

⑥SOLDER HEATING

Terminals/lead-wires of specimen shall be dipped into solder melted tank at

+350℃—±10℃ for 3^{+1}_{-0} sec .

Electrical characteristics shall be satisfied after dipping depth shall be 2mm from edge of terminals/lead-wires .

Ⅱ ENVIRONMENTAL ENDURANCE

Provided that measurement shall be carried out after letting it alone in the room temperature for 1 hour .

①HUMIDITY

Electrical characteristics shall be satisfied after letting it alone at 60℃—±2℃ in humidity of 90—95% for 250 hours .

②STORAGE IN LOW TEMPERATURE

Electrical characteristics shall be satisfied after letting it alone at -30℃—±2℃ for 250 hours .

③STORAGE IN HIGH TEMPERATURE

Electrical characteristics shall be satisfied after letting it alone at +85℃—±2℃ for 250 hours .

④TEMPERATURE CYCLE

Electrical characteristics shall be satisfied after supplying the following temperature cycle (3cycles) .

Temperature shift from low to high, high to low shall be done in 1℃/min (Refer to Fig-2) .