

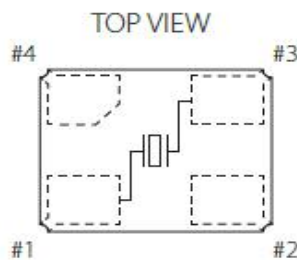
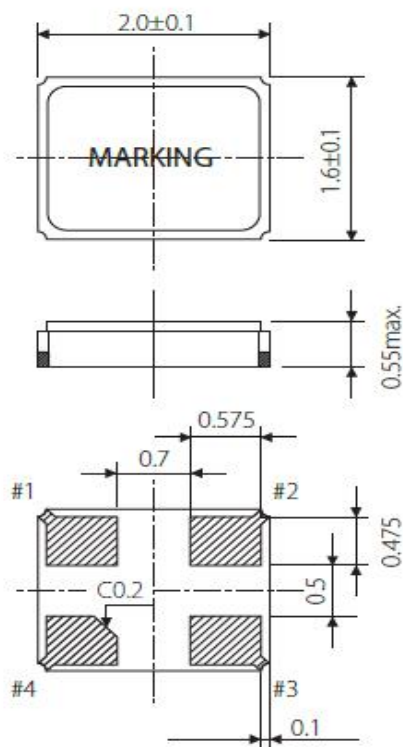


Victorlands Technical Specification

Product name	Quartz crystal unit
Model	2016/24.000MHz
Product code	K2B24000L0H4B2
Product parameters	12PF/±10PPM
Product reliability	P. 2-5
Packing form	P. 6

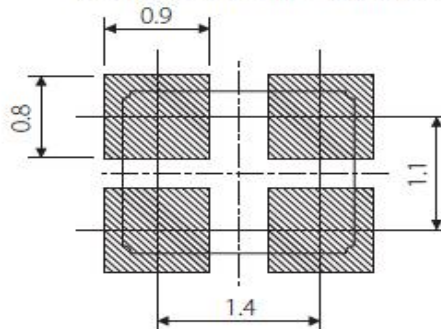


1. Frequency: 24.000 MHZ
2. Holder Type: SMD2.0*1.6
3. Frequency Tolerance: $\pm 10\text{ppm}$ at $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$
4. Equivalent Series Resistance: $60\ \Omega$ Max
5. Storage Temperature Range: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
6. Operating Temperature Range: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
7. Frequency Characteristics Over Temperature: $\pm 20\text{ppm}$ $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
8. Load Capacitance (CL): 12 PF
9. Drive Level: $100\ \mu\text{W}$
10. Shunt Capacitance: 5PF MAX
11. Insulation Resistance: $\geq 500\text{M}\ \Omega$ Min at 100 V
12. Mode Of Oscillation: Fundamental
13. Aging: $\pm 3\text{ppm}/\text{Year}$
- Marking description: KYX24.000
14. Dimensions(mm):

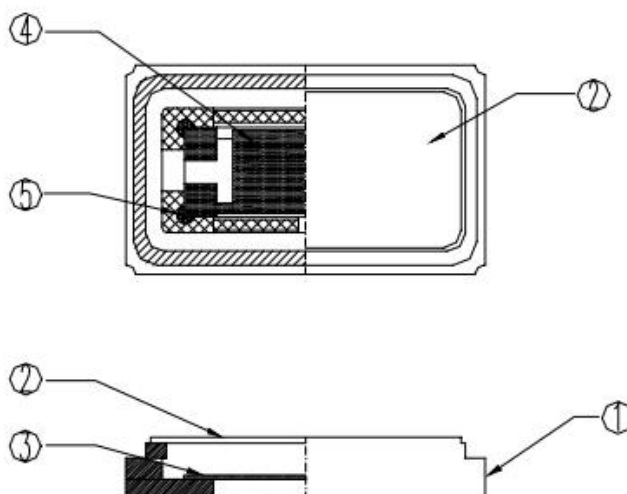


• #1, #3 : Crystal terminal / #2, #4 : Connected to cover
(Please connect it with GND.)

Example of a Terminal Land Pattern



16. Structure Illustration



PART NAME		MATERIAL	PART NAME		MATERIAL
1.	BASE	CERAMIC	4.	ELECTRODE	Metal
2.	LID	Co	5.	ADHESMES	SILVER GLUE
3.	BLANK	QUARTZ			



Reliability Testing

Project	Test conditions and requirements	Request
Vibration	Endurance condition by a frequency sweep shall be made. The entire frequency range from 10HZ to 50HZ and return to 10HZ, shall be transverseb in 1min. Amplitude(total excursion):1.5mm this motion shall be applied for a period of 2h each of 3 mutually perpendicular axes(a total of 6h)	(1). FL: ± 10 ppm (2). Rr: $\pm 10 \Omega$
Drop	Form 70cm height 3 times on 3cm hard wooden floor	
Shock	Peak acceleration: 981m/s^2 duration of the pulse :6ms three successive shocks shall be applied in both direction of 3 mutually perpendicular axes(a total of 18 shocks)	(1). FL: ± 10 ppm (2). Rr: $\pm 10 \Omega$
Damp heat, constant	The unit shall be stored at a temperature of $40^\circ\text{C} \pm 2^\circ\text{C}$ with relative humidity of 90%to95% for 48h, then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made.	
Cold	The unit shall be stored at a temperature of $-40^\circ\text{C} \pm 5^\circ\text{C}$ for 48h, then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made.	
Dry heat	The unit shall be stored at a temperature of $100^\circ\text{C} \pm 5^\circ\text{C}$ for 24h, then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made.	
Aging	The unit shall be stored at a temperature of $85^\circ\text{C} \pm 5^\circ\text{C}$ for 7d then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made.	
Temperature cycling	The unit shall be subjected to 5 successive change of temperature cycles, each as show in table below, then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made	



	Temperature	Duration
1	$-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$	30min
2	Standard atmospheric conditions	Within 30s
3	$100^{\circ}\text{C} \pm 3^{\circ}\text{C}$	30min
4	Standard atmospheric conditions	Within 30s

Resistance to
soldering heat





■ PACKING

1. CARRIER TYPE



2. REEL : 3000 PCS

