

Helping Customers Innovate, Improve & Grow
Table 1. Electrical Performance

Parameter	Symbol	Min.	Typ	Max	Units
Nominal Frequency	F_{NOM}	7.000		200.000	MHz
Mode		Fundamental, 3rd, 5th Overtone			
Operating Temperature Range	T_{OP}	0/70, -10/70, -20/70, -40/85			°C
Stability Over T_{OP}^1	F_{STAB}	±10		±100	ppm
Frequency Tolerance ²	F_{TOL}		±10		ppm
Load Capacitance	C_L	6		32	pF
Shunt Capacitance	C_o			5	pF
Drive Level			10	100	uW
Aging / 1st year (at 25 °C)	F_{AGE}			±5	ppm
Insulation Resistance		500			MOhm
Storage Temperature	T_{STO}	-40		90	°C
Equivalent Series Resistance					
Crystal Frequency	ESR				Ohm
7.000MHz-20.000MHz				30	
20.001MHz-50.000MHz				25	
40.001MHz-120.000MHz, 3rd Overtone				40	
80.000MHz-200.000MHz, 5th Overtone				100	

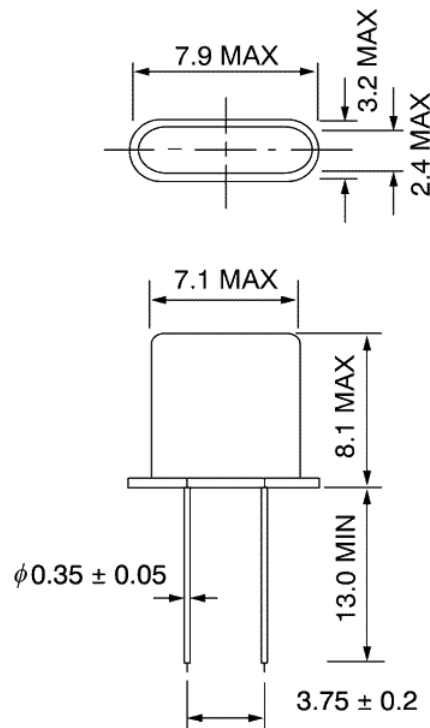
Notes:

1. Referenced to the Frequency at 25 °C.
2. Frequency measured at 25 °C ± 3 °C.

Product is compliant to RoHS directive and fully compatible with lead free assembly.



Package Drawing



All Dimensions in mm

Ordering Information

VXD1 - XXX - XX- xxMxxxxxxx

Product
UM-1, 8.1mm Tall

Mode
1: Fundamental
3: 3rd Overtone
5: 5th Overtone

Temp Stability
D: 15ppm
E: 20ppm
F: 25ppm
G: 30ppm
H: 35ppm
I: 40ppm
J: 45ppm
K: 50ppm
S: 100ppm

Frequency in MHz

Load Capacitance
 00: Series Resonance
 06-32pF

Operating Temperature
E: -40 to 85 °C
J: -20 to 70 °C
W: -10 to 70 °C
T: 0 to 70 °C

**Note: not all combination of options are available.
 Other specifications may be available upon request.*

15ppm stability not available for -40 to 85°C

Revision History

Revision Date	Approved	Description
August 30, 2016	RC	Initial datasheet for factory approval and release to customer.
August 10, 2018	FB	Update logo and contact information



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