

Helping Customers Innovate, Improve & Grow


Table 1. Electrical Performance

Parameter	Symbol	Min.	Typ	Max	Units
Nominal Frequency	F_{NOM}	3.500		100.000	MHz
Mode		Fundamental, 3rd 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
3.500MHz-3.579MHz				250	
3.580MHz-4.000MHz				150	
4.001MHz-5.000MHz				120	
5.001MHz-6.000MHz				100	
6.001MHz-7.000MHz				80	
7.001MHz-10.000MHz				60	
10.001MHz-14.000MHz				50	
14.001MHz-20.000MHz				40	
20.001MHz-40.000MHz, Fundamental				30	
24.001MHz-35.000MHz, 3rd Overtone				100	
35.000MHz-100.000MHz, 3rd Overtone				80	

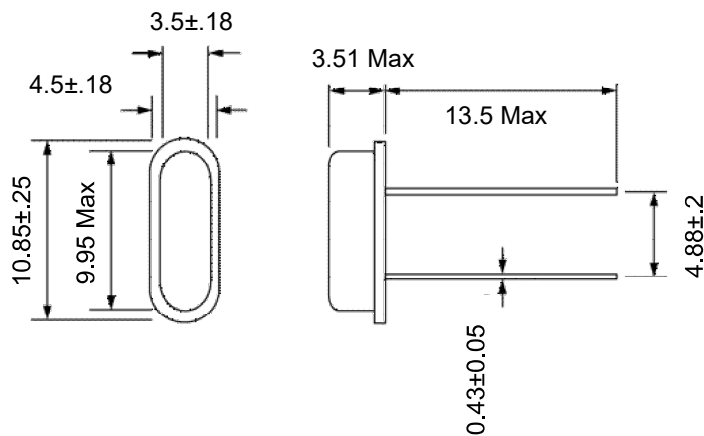
Notes:

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. 

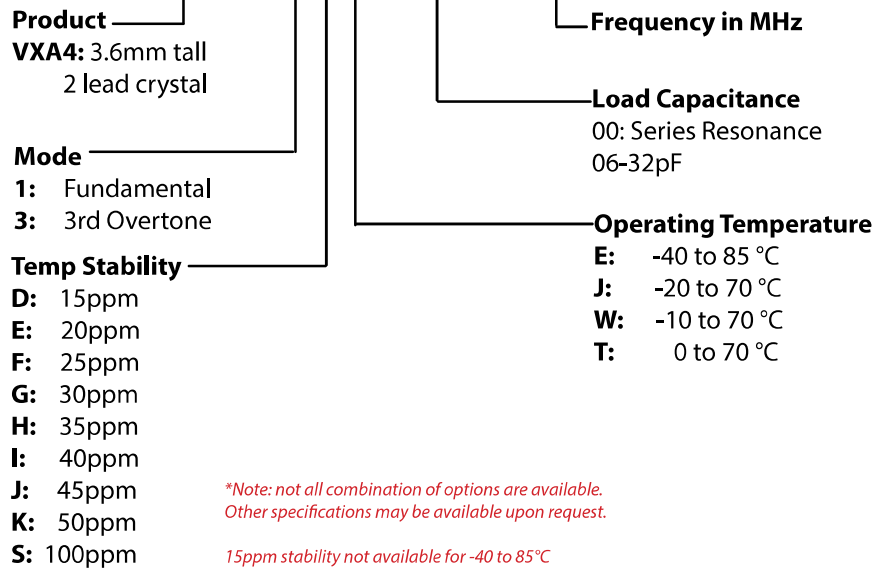
Package Drawing



All Dimensions in mm

Ordering Information

VXA4 - XXX - XX- xxMxxxxxxx



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
June 10, 2019	FB	Update logo and contact information

**Previous Ordering Information for Reference Only
Do Not Use to Build a New Part Number**

VXA4-1A2-10M000

Package

VXA4: HC-49/US, 3.51 mm tall

Mode

1 : Fundamental
3: 3rd Overtone

Stability

A: ± 100 ppm over -20°C to 70°C
B: ± 50 ppm over -20°C to 70°C
C: ± 100 ppm over -40°C to 85°C
D: ± 50 ppm over -40°C to 85°C
F: ± 30 ppm over -20°C to 70°C

Frequency

Load Capacitance

0: Series Resonant
1: 16 pf
2: 20 pf
3: 32 pf
4: 18 pf
5: 10 pF
6: 30 pf

The ordering codes for the VXA4 were changed in 2016. If you had ordered a specific code based off this ordering method, it is still available for purchase under the old code however no new part numbers will be created using this system.

Due to the change in the 8th character from numeric to alphabetic, there is no opportunity for overlap between the two ordering methods.

Contact Information

USA:

100 Watts Street
Mt Holly Springs, PA 17065
Tel: 1.717.486.3411
Fax: 1.717.486.5920

Europe:

Landstrasse
74924 Neckarbischofsheim
Germany
Tel: +49 (0) 7268.801.0
Fax: +49 (0) 7268.801.281



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