

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:

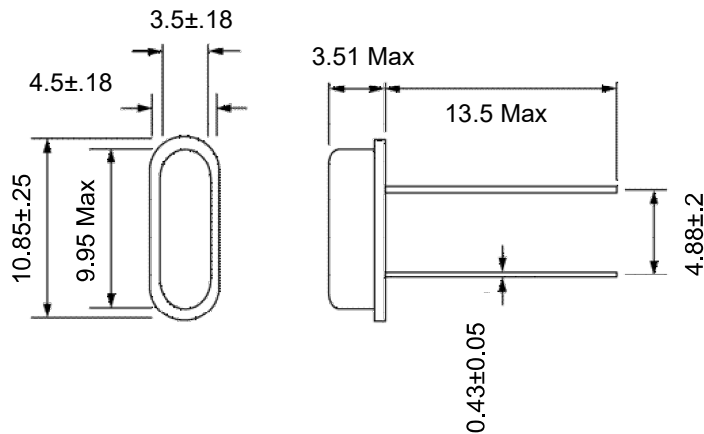
1. Referenced to the Frequency at 25 °C.

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

Product

VXA4: 3.6mm tall
2 lead crystal

Mode

1: Fundamental
3: 3rd 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 |
| 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

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