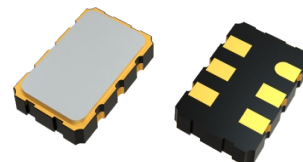


FASTVCXO, Series

5.0 x 3.2 mm SMD Voltage Controlled Crystal Oscillator

Feature

- Typical 5.0 x 3.2 x 1.25 mm 6 pads ceramic SMD package
- Tight symmetry (45 to 55%) available
- Output frequency up to 250 MHz
- Tri-state enable/disable
- Pb-free/ RoHS compliant



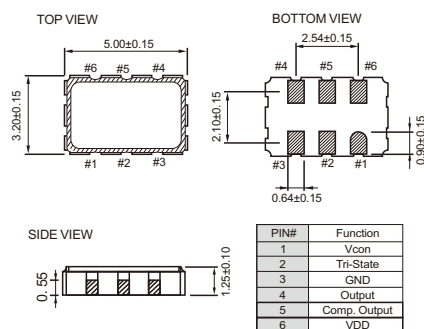
Electrical Specifications

| Parameter | 2.5V / 3.3V | | Unit |
|--|-------------------------|--------|--------|
| | Min. | Max. | |
| Supply Voltage Variation(VDD) | VDD-5% | VDD+5% | V |
| Frequency Range | 10 | 250 | MHz |
| Absolute Pulling Range (APR) | ±50 | - | ppm |
| Control Voltage Range | 0.3 | 3.0 | V |
| Supply Current | 10 MHz ≤ Fo < 160 MHz | - | mA |
| | 160 MHz ≤ Fo ≤ 250 MHz | 50 | |
| Output Level (CMOS) | Output High (Logic"1") | 2.97 | V |
| | Output Low (Logic"0") | 0.33 | |
| Transition Time (10% ~ 90%) Rise/Fall Time + | - | 2 | nSec |
| Duty Cycle | 45 | 55 | % |
| Start Time | - | 2 | mSec |
| Tri-State (input to Pin 2) | Enable | 2.31 | V |
| | Disable | - | |
| Period Jitter (Pk-Pk) | - | 150 | pSec |
| RMS Phase Jitter (Integrated 12kHz~20MHz) | - | 1 | pSec |
| Linearity | - | 10 | % |
| Modulation Bandwidth (BW) | 10 | - | kHz |
| Input Impedance | 1000 | - | kΩ |
| Phase Noise@155.52MHz | 100 Hz | -75 | dBc/Hz |
| | 1 kHz | -105 | |
| | 10kHz | -125 | |
| Aging (@ 25℃ 1st year) | - | ±3 | ppm |
| Storage Temp. Range | -55 | 125 | ℃ |

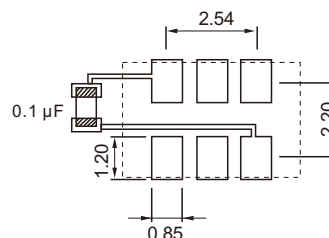
Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

+ Transition times are measured between 10% and 90% of V DD , with an output load of 15pF.

Dimension(mm)



Solder Pad Layout(mm)



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1 μF as close to the part as possible between Vdd and GND pads.

FREQ. STABILITY vs. TEMP. RANGE

| ppm Temp. (°C) | ±25 | ±50 |
|-------------------|-----|-----|
| -10 ~ +60 | O | O |
| -20 ~ +70 | O | O |
| -40 ~ +85 | Δ | O |

O: Available Δ: Conditional X: Not available

Inclusive of calibration @ 25 °C, operating temperature range, input voltage variation, load variation, aging (1 st year), shock, and vibration