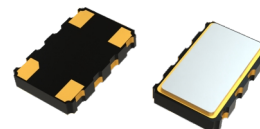


5.0 x3.2 mm SMD Voltage Controlled Temperature Compensated Crystal Oscillator

Feature

- Typical 5.0 x 3.2 x 1.1 mm SMD package
- CMOS and Clipped Sine Wave output optional
- Compactness and lightweight
- Voltage control TCXO available



Electrical Specifications

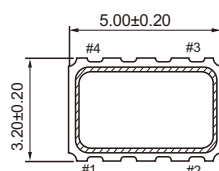
Parameter		3.3/3.0/2.8V		2.5V		1.8V		Unit
		Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation		2.66	3.465	2.375	2.625	1.71	1.89	V
Frequency Range		10	52	10	52	10	52	MHz
Standard Frequency		10,12.8,13,16.368,16.369,19.2,19.44,20.25,26,27,30,30.72,32,38.4						MHz
Frequency Tolerance*		-	±2.0	-	±2.0	-	±2.0	ppm
Frequency stability	VS Supply V(±5%) change	-	±0.2	-	±0.2	-	±0.2	ppm
	VS Load(±10%) change	-	±0.2	-	±0.2	-	±0.2	
	VS Aging(@1 st year)	-	±1.0	-	±1.0	-	±1.0	
Supply Current (Clipped Sine)	10MHz ≦ FO<26MHz	-	1.5	-	1.5	-	1.5	mA
	26 MHz ≦ FO<52MHz	-	2.0	-	2.0	-	2.0	
Supply Current(CMOS) 10MHz ≦ FO<52MHz		-	10	-	5	-	7	mA
Clipped sine wave	Output Level	0.8	-	0.8	-	0.8	-	V _{p-p}
	Load	10kΩ//10pF		10kΩ//10pF		10kΩ//10pF		
CMOS	Output High	0.9V _{DD}	-	0.9V _{DD}	-	0.9V _{DD}	-	V
	Output Low	-	0.1V _{DD}	-	0.1V _{DD}	-	0.1V _{DD}	V
	Load	-	15	-	15	-	15	pF
Control Voltage Range(VCTCXO)		0.5	2.5	0.4	2.4	0.3	1.5	V
Pulling Range (VCTCXO)		±5	-	±5	-	±5	-	ppm
Vc Input Impedance(VCTCXO)		500	-	500	-	500	-	kΩ
Phase Noise @19.2MHz	100Hz	-115		-115		-115		dBc/Hz
	1KHz	-135		-135		-135		
	Clipped Sine	-148		-148		-148		
Start Time		-	2	-	2	-	2	mSec
Storage Temp. Range		-55	125	-55	125	-55	125	°C

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

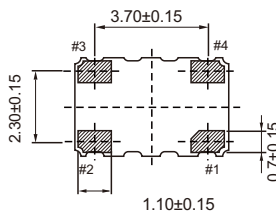
* Frequency at 25°C, 1 hour after reflow.

Dimension(mm)

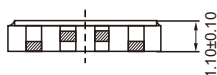
TOP VIEW



BOTTOM VIEW

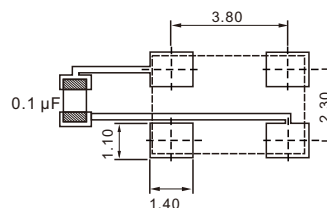


SIDE VIEW



PIN#	Function
1	VCON:VC-TCXO GND/NC:TCXO
2	GND
3	Output
4	VDD

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)	±0.5	±1.0	±1.5	±2.0	±2.5
-20 ~ +70	○	○	○	○	○
-30 ~ +85	○	○	○	○	○
-40 ~ +85	○	○	○	○	○

○: Available Δ: Conditional X: Not available