

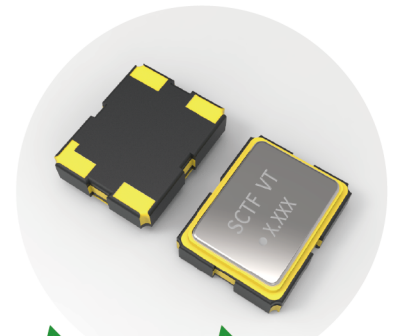
# 3T/3VT Series TCXO/VC-TCXO Crystal Oscillator

## Feature

- Ceramic Surface Mount Package
- Output Type: Clipped Shine Wave
- Voltage Control Function Available
- Fundamental Crystal Design
- RoHS Compliant / Pb Free

## Applications

- GPS
- Wireless Communications
- Test Equipment
- Networking systems
- Industrial control & automation



## Frequency Stability & Operating Temperature Range

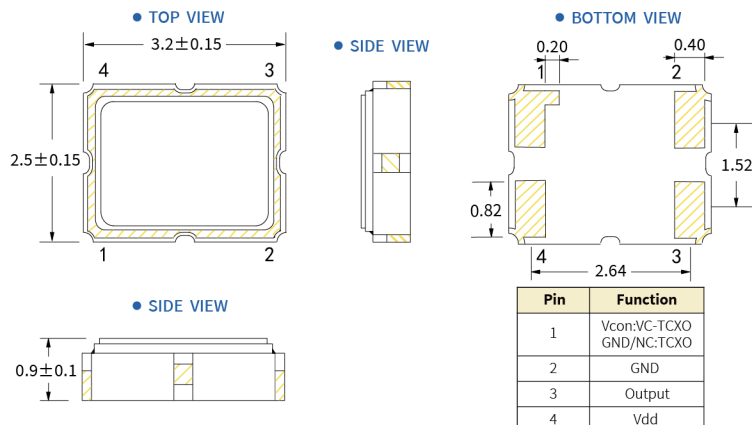
Temp.	FT	±0.5ppm	±1.0ppm	±1.5ppm	±2.0ppm	±2.5ppm
-20°C to +70°C	★	★	★	★	★	★
-30°C to +85°C	★	★	★	★	★	★
-40°C to +85°C	★	★	★	★	★	★

★: Available    △: Conditional

## Electrical Specifications

Item	Symb.	Min.	Typ.	Max.	Unit	Notes
Frequency Range	Freq.	10		52.000	MHz	
Operating Temperature	T <sub>use</sub>	-20		70	°C	
		-30		85	°C	
		-40		85	°C	
Storage Temperature Range	T <sub>stg</sub>	-55		125	°C	
Supply Voltage	V <sub>dd</sub>	1.8		3.3	V	±5% max.
Output Waveform		Clipped Sine Wave				
Frequency Tolerance	Fo <sub>tol</sub>			±2	ppm	T <sub>use</sub> =25±2 °C
Frequency Vs Temperature Change	Fo <sub>Tc</sub>	±0.5		±2.5	ppm	T <sub>use</sub> =-40°C~+85 °C Based on frequency at +25°C
Frequency vs Load Change	Fo <sub>Load</sub>			±0.2	ppm	±10% load change
Frequency vs Voltage Change	Fo <sub>Vdd</sub>			±0.2	ppm	Voltage varied ±5% at 25°C
Current Consumption	I <sub>cc</sub>			2	mA	
Center Voltage(VC-TCXO)	V <sub>cont</sub>		1.4		V	
Control Voltage Range(VC-TCXO)	V <sub>c</sub>	0.4		2.4	V	
Frequency Pulling Range(VC-TCXO)	PR	±8		±15	ppm	
Linearity(VC-TCXO)	L		10		%	
Duty Cycle	SYM	40		60	%	Ground level
Output Level	V <sub>p-p</sub>	0.8			V	
Harmonics				-5.0	dBc	
Output Load	Load	10KΩ//10pF				
Start-up Time	T <sub>str</sub>			2	mS	
Phase Noise			-130		dBc/Hz	Offset:1KHz
			-152		dBc/Hz	Offset:100KHz
Aging	f <sub>age</sub>			±1	ppm	1st. Year at 25°C

## Dimensions (UNIT:mm)



## Solder pad layout (UNIT:mm)

