PERICOM
SaRonix-eCera®

Voltage Controlled Temperature Compensated Crystal Oscillator 3.2 x 2.5mm

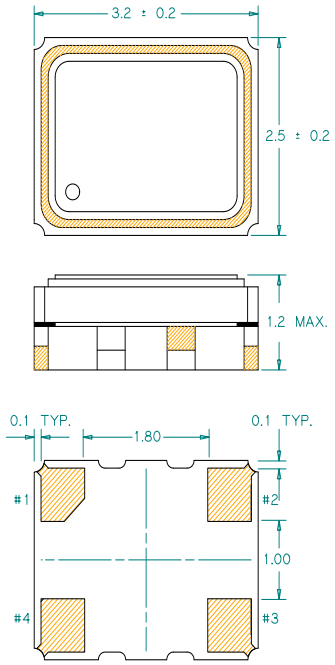
1.8V ~ 3.3VDC Clipped Sinewave VCTCXO

WC325

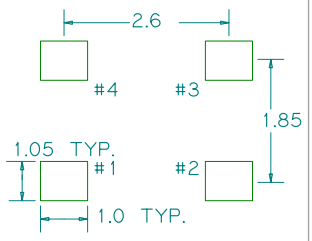
3.2 x 2.5mm Ceramic SMD

Typical Frequencies available MHz:		
16.367667	16.369	19.200
25.000	26.000	40.000

Package: (scale-none, dimensions in mm)



Recommended Land Pattern:



Pin Functions:

Pin	Function
1	Control Voltage
2	Ground
3	Output
4	V_{DD}

Product Features

- Low Current
- Tight temperature stability
- Clipped Sinewave output levels
- Excellent Phase Noise
- Industrial Temperature Range
- Pb-free and RoHS/Green compliant
- Fast lead time

Product Description

The WC325 VCTCXO series is a high performance temperature compensated oscillator with a clipped sinewave output for a very low operating supply current. It supports various power supply voltages, stabilties and other features. It is designed to meet existing application requirements.

Applications

- Networking systems
- Networking
- GPS/Navigation
- Metering
- Mobile and wireless
- Handset

Part Ordering Information:

WC325 V X FFFF.FFFFFF

Voltage:
1=+3.3V
2=+2.5V
3=+1.8V
4=+1.5V
B=+3.0V
C=+2.8V
D=+2.7V
E=+2.85V
F=+2.75V
G=+2.4V

Stability and Temp Range:

Stability	Temp Range	-20/+70C	-30/+85C	-30/+75C	-40/+85C
+/-0.5ppm		A	F	K	P
+/-1.0ppm		B	G	L	Q
+/-1.5ppm		C	H	M	R
+/-2.0ppm		D	I	N	S
+/-2.5ppm		E	J	O	T
+/-5.0ppm		W	X	Y	Z

Frequency:
FFFF.FFFFFF
MHz, "4 digits/decimal/6 digits" format

Following the above format, PSE Technology Corporation part numbers will be assigned upon confirmation of exact customer requirements.

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Voltage Controlled Temperature Compensated Crystal Oscillator (VCTCXO) 3.2 x 2.5 mm

Electrical Performance

Parameter		Min.	Typ.	Max.	Units	Notes
Output Frequency		10		40	MHz	
Supply Voltage		1.8		3.3	V	See ordering options, V_{DD} ±5%
Supply Current				2.0	mA	Output Frequency ≤ 30 MHz
				2.1	mA	Output Frequency > 30 MHz
Output Voltage Level		0.8		1.4	V	Pk-Pk
Control Voltage Center			0.9		V	For V_{DD} ≤ 2.3V
			1.4		V	For V_{DD} >2.3V
Control Voltage Range		0		1.8	V	For V_{DD} ≤ 2.3V
		0.4		2.4	V	For V_{DD} >2.3V
Frequency Adjustment Range (Pulling Range)		-8		8	ppm	
Linearity				10	%	Positive slope
Input Impedance		500			kΩ	
Modulation Bandwidth		10			kHz	
Output Load	Resistance	9	10	11	kΩ	
	Capacitance	9	10	11	pF	
Frequency Stability	vs Temperature	±0.5		±5.0	ppm	See ordering options
	vs Load			±0.2	ppm	±10% load change
	vs Voltage			±0.1	ppm	±5% supply voltage change at typical load
Frequency Aging				±1.0	ppm	First year, +25°C
Frequency Tolerance After Two Reflows				±2.0	ppm	@ +25°C±3°C after one hour recovery
Harmonics				-7	dBc	
Operating Temperature Range		-30		85	°C	See ordering options
Storage Temperature Range		-40		85	°C	
Phase Noise at 1KHz offset			-128		dBc/Hz	At 26MHz

Notes:

1. For specifications other than those listed, please contact sales.
2. Not all combinations of V_{DD}, Operating Temperature Range, Frequency Stabilty and Output Frequency are available.
3. Frequency Stability vs. Temperature is reference to the mid-point between minimum and maximum frequency values over the specified Operating Temperature Range
4. Frequency Stability vs. Voltage and vs. Load changes are reference to the Nominal Frequency at 25°C

For the latest product information visit: http://www.pericom.com/products/crystals-and-crystal-oscillators/tcxo/?part=WC325

For test circuit go to: http://www.pericom.com/assets/sre/VCTCXO_CLIPPEDSINE_RevA.pdf

For soldering reflow profile and reliability test ratings go to: http://www.pericom.com/assets/sre/reflow.pdf

For tape and reel information go to: http://www.pericom.com/assets/sre/tr_3225_xo.pdf