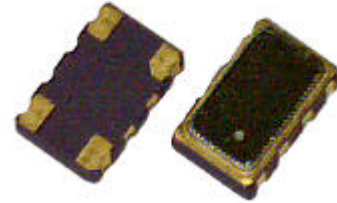


**Features**

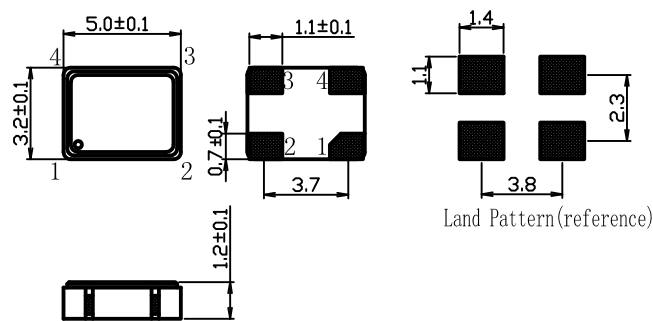
9.6 to 40 MHz (2.8V, 3.0V and 3.3V supply)  
 9.6 to 25 MHz (with 5V supply)  
 5.0 mm x 3.2 mm x 1.2mm ceramic SMD  
 Compact and lightweight  
 Clipped sine output

**Picture of Part****Typical Applications**

Wireless / Satellite Communications  
 WLAN / WiMAX / WIFI  
 SONET / SDH / ATM

**Description**

The TCXO5301 family offers a wide operating frequency range for a wide variety of applications. This cost effective family is manufactured with a number of standard frequencies: 10, 12.8, 13, 14.4, 15.36, 16.384, 19.2, 19.44, 19.68, 20, 25, and 27 MHz.

**Physical Dimensions & Pin Connections**

Pad Connections:  
 Pad 1: Voltage control for VCTCXO; Ground for TCXO.  
 Pad 2: Ground; Pad 3: Output Pad 4: Supply Voltage

**Specification**

TCXO Specification		Sym.	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
<b>Operational Frequency Range</b>		$f_0$		9.6		40	MHz	26 to 40MHz ( 2.8V and 3.0V )
				9.6		25	MHz	for 5V supply option
Clipped Sine only	Load					10 10	pF Kohm	
	Output - level			0.8			Volts	Peak to peak minimum
<b>Power supply</b>								
Voltage		Vcc		3.150	3.300	3.450	V	2.8V and 5V available
Current consumption		Icc			2.0	2.5	mA	
<b>Frequency control*</b>								
Control voltage range		Vc		0.5	1.5	2.5	V	Positive tuning slope
Input Impedance				1.0			Mohm	
Tuning range				+/- 8.0			ppm	
Tuning Linearity						10	%	BW measured at -3 dB
Modulation BW				3.0			KHz	
<b>Frequency stability</b>								
vs. temperature			-40°C to +85°C, ref 25°C	-1.0		+1.0	ppm	**Best Stability available
vs. 5% change in supply voltage			ref Vcc typ.	-0.300		+0.300	ppm	
Tolerance at 25C				-2.0		+2.0	ppm	Frequency 24 hrs after reflow
<b>SSB Phase noise @ 13 MHz Typical</b>			10 Hz		-80		dBc/Hz	
			100 Hz		-115			
			1 kHz		-135			
			10 kHz		-148			
			100 kHz		-148			
Aging		Per Year	Projected yearly aging after 30 days operation	-1.0		+1.0	ppm	
<b>Environmental, mechanical conditions.</b>								
Operating temperature range			<b>-40°C to +85°C maximum range available that is standard</b>					
Storage temperature range			<b>-40°C to 85°C</b>					

## Ordering Information

TCXO5301-XX.XXXXXX-W-Y-Z

1. Field " XX.XXXXXX " is the Output Frequency to six decimals in MHz
2. Field " W " is Operating Temperature Range and Freq. Stability :
  - a. " 0 " for -20°C to +70°C and +/- 1.000 ppm
  - b. " 1 " for -30°C to +75°C and +/- 1.000 ppm
  - c. " 2 " for -30°C to +85°C and +/- 1.000 ppm
  - d. " 3 " for -40°C to +85°C and +/- 1.000 ppm
  - e. " 4 " for -40°C to +85°C and +/- 1.500 ppm
  - f. " 5 " for -40°C to +85°C and +/- 2.000 ppm
  - g. " 6 " for -40°C to +85°C and +/- 2.500 ppm
  - h. " 7 " for -40°C to +85°C and +/- 3.000 ppm
  - i. " 8 " for -40°C to +85°C and +/- 5.000 ppm
  - j. \*\* NOT all frequencies available with option 3 and 4**
  - k. Please consult factory**
3. Field " Y " is Power Supply Option
  - a. " 0 " for 3.0 V +/- 5%
  - b. " 1 " for 2.8 V +/- 5%
  - c. " 2 " for 5.0 V +/- 5%
  - d. " 3 " for 3.3 V +/- 5%
4. Field " Z " is TCXO ( clock ) or VCTCXO ( voltage control )
  - a. " 0 " for TCXO
  - b. " 1 " for VCTCXO

## Part Number Example

TCXO5301-10.000000-3-0-1

10.000000 MHz Operating Frequency

Operating Temperature of -40°C to +85°C

+/- 1.000 ppm Frequency Stability

3.0 V +/- 5% supply

VCTCXO option (voltage-controlled frequency adjust)