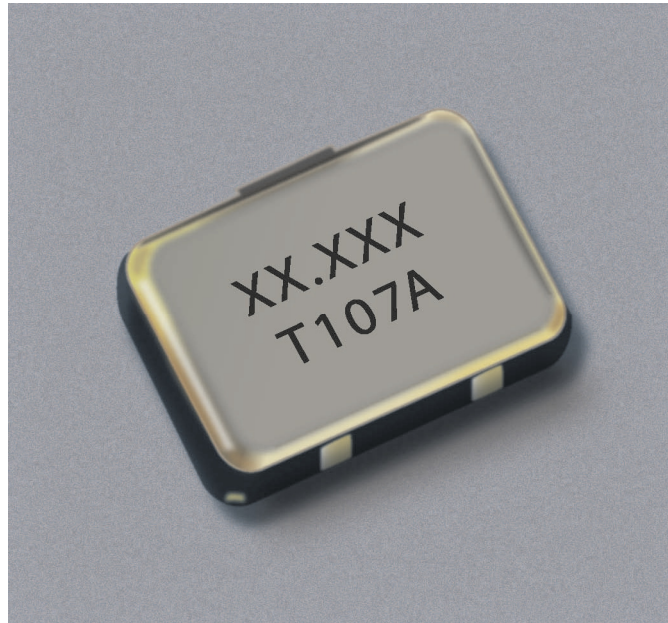


### Description:

The T107A Temperature Compensated Voltage Controllable Crystal Oscillator (TCVCXO) offers a wide range of performance options in a miniature 2.5 x 2.0 mm ceramic SMD package.

The compact light weight package makes this part ideal for automated assembly applications.



### Features:

- Available in frequencies from 15 to 40 MHz. with 16.368MHz, 16.369MHz, 19.2 MHz, 20MHz, 26MHz, and 40 MHz standards. Contact the factory for other standard frequencies.
- +/- 5 ppm pull range available
- Clipped Sine Wave output
- Standard 2.5 x 2.0 mm ceramic SMD package
- External VCC bypass capacitor required.
- RoHS-6 Lead-free compliant

### **Frequency Range, Operating Temperature, and Frequency Stability:**

Frequency Range	Operating Temperature	Product Code	Frequency Stability	Product Code
15MHz to 40MHz	-20 to +70° C	<b>C</b>	+/- 0.5 ppm	<b>A</b>
	-40 to +85° C	<b>D</b>	+/- 1.0 ppm	<b>B</b>
	0 to +55° C	<b>E</b>	+/- 1.5 ppm	<b>C</b>
	-10 to +60° C	<b>F</b>	+/- 2.0 ppm	<b>D</b>
	-30 to +85° C	<b>G</b>	+/- 2.5 ppm	<b>E</b>

Frequency stability "A" not available for temperature range "D". Frequency Stability "B" is available for temperature range "D" and stability "A" over temperature range "G" are available on a case-by-case basis. Consult factory.

### **Aging:** (typical at 10 MHz after 30 days continuous operation)

Frequency	Timeframe	Aging	Product Code
10 MHz	1st Year	+/- 1.0 ppm	<b>N/A</b>

### **Phase Noise:**

Frequency	Offset	Phase Noise (Typ.)	Product Code
19.2 MHz	1 Hz	- 60 dBc/Hz	<b>N/A</b>
	10 Hz	- 85 dBc/Hz	
	100 Hz	-115 dBc/Hz	
	1 KHz	-135 dBc/Hz	
	10 KHz	-148 dBc/Hz	
	100 KHz	-150 dBc/Hz	

### Supply Voltage (Vs):

Power Supply (Vs)	+2.5 Vdc +/-10%	+2.8 Vdc +/-10%
Product Code	<b>C</b>	<b>D</b>

### Current Consumption:

Freq Range	15MHz ≤ 26MHz	26MHz – 40MHz
Supply Current	2.0mA	2.5 mA

### Output Waveform:

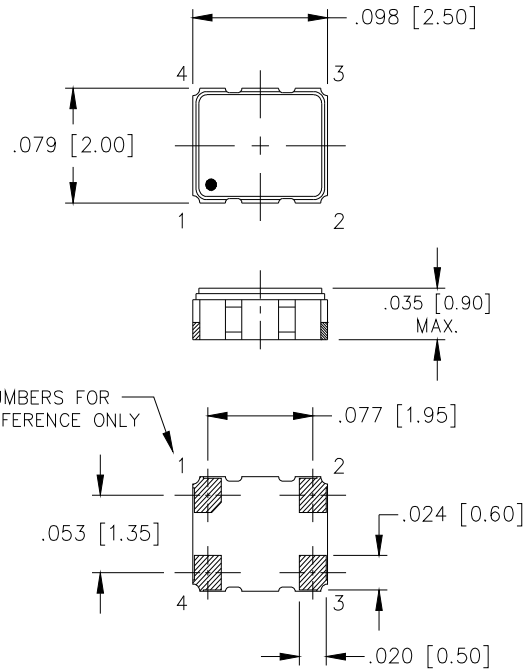
Clipped Sine Wave	
Product Code	N/A
Output Level	0.8 V p-p min.
Load	10K // 10 pF

### Pulling Range:

Tuning Range	None(TCXO)	+/-5 ppm
Product Code	<b>T</b> (Pin 1 – Ground)	<b>A</b>

### Environmental:

Storage Temperature	-55 to +125° C
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#### PIN CONNECTIONS

1. TCVCXO: VOLTAGE CONTROL  
OR  
TCXO: GROUND
2. GROUND
3. OUTPUT
4. + VDC

### Ordering Options:

Operating Temperature	Frequency Stability	Supply Voltage	Pulling Range	Operating Frequency (MHz)
C	A	C	T	xxMxxxx
D	B	D	A	xxMxxxx
E	C			xxMxxxx
F	D			xxMxxxx
G	E			xxMxxxx

T107A C B C A 15.0000 MHz

### Product Selection Code (refer to the above example):

This part is RoHS compliant, -20 to +70C, +/- 1.0pm, 2.5 volt clipped sine wave with +/- 5 ppm pull at 15MHz output frequency.

\*\* Not all combinations available in this product.