

# Voltage Controlled Crystal Oscillator

## CVXO-016T Model

5x7 mm SMD, 5V, HCMOS/TTL

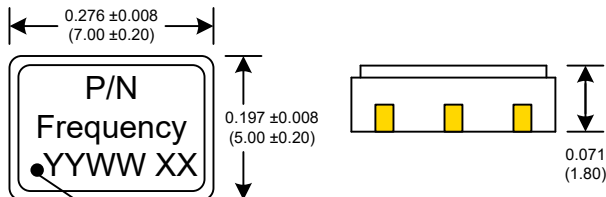
|                                 |   |
|---------------------------------|---|
| <b>Frequency Range:</b>         | 1 MHz to 52 MHz   |
| <b>Frequency Stability:</b>     | ±25ppm to ±100ppm                                       |
| <b>Temperature Range:</b>       |   |
| Operating:                      | 0°C to 70°C   |
| (Option X)                      | -40°C to 85°C   |
| <b>Storage:</b>                 | -45°C to 90°C   |
| <b>Input Voltage:</b>           | 5V ±0.5V  |
| <b>Control Voltage:</b>         | 2.5V ±2.0V  |
| <b>Settability* At Nominal:</b> | 2.5V ±0.5V  |
| <b>Frequency Pulling:</b>       | ±100ppm Min   |
| <b>Input Current:</b>           | 10mA Max  |
| <b>Output:</b>                  | HCMOS/TTL   |
| Load:                           | 15pF / 10 TTL   |
| Symmetry:                       | 40/60% Max @ 50% Vdd                                    |
| Rise/Fall Time:                 | 5ns Max @ 10% to 90% Vdd                                |
| Logic:                          | "0" = 10% Vdd Max<br>"1" = 90% Vdd Min                  |
| Linearity:                      | ±10% Max  |
| <b>Aging:</b>                   | <3ppm 1 <sup>st</sup> year, <1ppm every year thereafter |



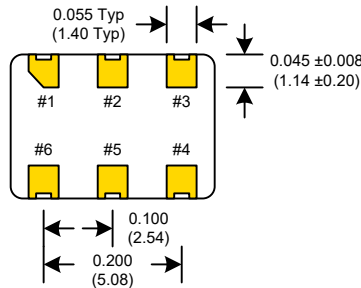
Designed to meet today's requirements for 5V Voltage Controlled Crystal Oscillator SMD Applications. The CVXO-016T provides a disable function for ICT (in-circuit-testing). Available on 16mm tape and reel in quantities of 1K.

Dimensions inches (mm)

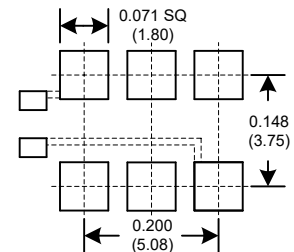
All dimensions are Max unless otherwise specified.



Denotes pad 1  
YYWW=Date Code XX=Lot Code

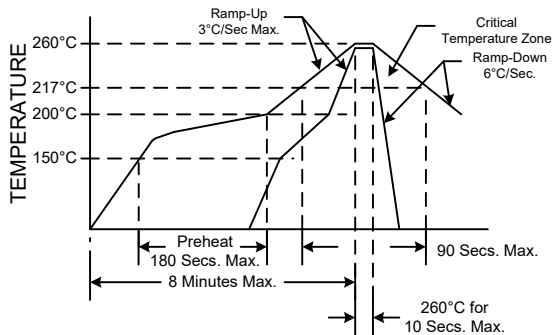


### SUGGESTED PAD LAYOUT



0.01uF Bypass Capacitor Recommended

### RECOMMENDED REFLOW SOLDERING PROFILE



NOTE: Reflow Profile with 240°C peak also acceptable.

### Crystek Part Number Guide

CVXO - 016T - X - 25 - 49.152

#1 #2 #3 #4 #5

#1 Crystek VCXO  
#2 Model  
#3 Temp. Range: Blank= 0/70°C, X= -40/85°C  
#4 Stability: (see Table 1)  
#5 Frequency in MHz: 3 or 6 decimal places

#### Stability Indicator

|             |          |
|-------------|----------|
| Blank (std) | ± 100ppm |
| 25          | ± 25ppm  |
| 50          | ± 50ppm  |

Table 1

Example:  
CVXO-016TX-25-25.000 = 5.0V, -40/85°C, 40/60, 25ppm, 25.000 MHz  
CVXO-016T-50-19.660800 = 5.0V, 0/70°C, 40/60, 50ppm, 19.660800 MHz

| PIN | Connection     |
|-----|----------------|
| 1   | Volt Cont.     |
| 2   | Enable/Disable |
| 3   | GND            |
| 4   | Output         |
| 5   | N/C            |
| 6   | Vdd            |

| Enable/Disable        |            |
|-----------------------|------------|
| Function pin 2        | Output pin |
| Open                  | Active     |
| "1" level 0.7×Vdd Min | Active     |
| "0" level 0.3×Vdd Max | High Z     |

Specifications subject to change without notice.

Rev: K

Date: 10-May-2016

Page 1 of 1

\*Settability is the Control Voltage at which the Output Frequency is equal to the nominal Frequency.