**Voltage Controlled Crystal Oscillator**

**CVXO-018T Model**

5×7 mm SMD, 3.3V, HCMOS

Frequency Range: 1 MHz to 52 MHz
Frequency Stability: ±25ppm to ±100ppm
Temperature Range:
- Operating: 0°C to 70°C
- (Option M): -20°C to 70°C
- (Option X): -40°C to 85°C

Storage: -45°C to 90°C
Input Voltage: 3.3V ±0.3V
Control Voltage: 1.65V ±1.65V
Settability* At Nominal: 1.65V ±0.25V
Frequency Pulling: ±100ppm Min
Input Current: 10mA Max
Output: HCMOS

Load: 15pF
Symmetry: 40/60% Max @ 50% Vdd
Rise/Fall Time: 5ns Max @ 20% to 80% Vdd
Logic: "0" = 10% Vdd Max
"1" = 90% Vdd Min
Linearity: ±10% Max
Aging: <3ppm 1st year, <1ppm every year thereafter

**Recommended Reflow Soldering Profile**

- 260°C for 10 Secs. Max.
- 250°C for 10 Secs. Max.
- 217°C Ramp-Up
- 3°C/Sec Max.
- 200°C Ramp-Down
- 6°C/Sec

**Critical Temperature Zone**

- Preheat 180 Secs. Max.
- 200°C for 8 Minutes Max.
- 260°C for 10 Secs. Max.

**Crystek Part Number Guide**

<table>
<thead>
<tr>
<th>PIN</th>
<th>Connection</th>
<th>Enable/Disable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Voltage Control</td>
<td>Function pin 2</td>
</tr>
<tr>
<td>2</td>
<td>Enable/Disable</td>
<td>Output pin</td>
</tr>
<tr>
<td>3</td>
<td>GND</td>
<td>Open</td>
</tr>
<tr>
<td>4</td>
<td>Output</td>
<td>&quot;1&quot; level Vdd-0.4 Min</td>
</tr>
<tr>
<td>5</td>
<td>N/C</td>
<td>&quot;0&quot; level 0.4 Max</td>
</tr>
<tr>
<td>6</td>
<td>Vdd</td>
<td>High Z</td>
</tr>
</tbody>
</table>

**Suggested Pad Layout**

- 0.276 ±0.008
- 0.197 ±0.008
- 0.071

- 0.055 Typ
- 0.045 ±0.008

- 0.148 (3.75)
- 0.200 (5.08)
- 0.071 SQ (1.80)
- 0.01uF Bypass Capacitor Recommended

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

**Designed to meet today's requirements for 3.3V Voltage Controlled Crystal Oscillator SMD Applications.** The CVXO-018T provides a disable function for ICT (in-circuit-testing). Available on 16mm tape and reel in quantities of 1K.

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