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CVPD-034 LVPECL
Voltage Controlled Crystal Oscillator
5×7mm SMD
3.3 Volts



Frequency Range: 77.760 MHz to 200.000 MHz

Frequency Pulling (APR*) Min.: ±50ppm

Temperature Range: (standard) 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 ±5%
Control Voltage: 1.65V ±1.65V
Input Current: 55mA Typical, 88mA Max

Output: Differential LVPECL
Symmetry: 45/55% Max @ 50% Vdd
Rise/Fall Time: 1nsec Max @ 20% to 80% Vdd
Linearity: ±10% Max

Logic: Terminated to Vdd-2V into 50 Ω
Temp. 0°C to 85°C "0"=1.490 Min, 1.680 Max
"1"=2.275 Min, 2.420 Max
Temp. -40°C to 0°C "0"=1.490 Min, 1.745 Max
"1"=2.215 Min, 2.420 Max
Disable Time: 200nSec Max
Enable Time: 20uSec Max

Phase Jitter: 12kHz~80MHz 0.5psec Typical, 1psec RMS Max

Phase Noise: 10Hz -70dBc/Hz Typical
100Hz -98dBc/Hz Typical
1kHz -125dBc/Hz Typical
10kHz -145dBc/Hz Typical
100kHz -149dBc/Hz Typical

Sub-harmonics: None

Aging: <5ppm 1st year, <2ppm every year thereafter



* Inclusive of calibration, frequency stability, and aging

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Crystek Part Number Guide

CVPD - 034 X - 50 - 155.520

#1 #2 #3 #4 #5

#1 Crystek PECL VCXO
#2 Model 034
#3 Temp Range: Blank = 0/70°C, M = -20/70°C, X = -40/85°C
#4 Pullability: (see Table 1)
#5 Frequency in MHz: 3 or 6 decimal places

Pullability Indicator

50 ± 50ppm

Table 1

Example:

CVPD-034X-50-155.520

3.3V, -40/85°C, ±50ppm (APR), 155.520 MHz

Standard Frequencies

(±50ppm, 0/70°C)
77.760 MHz
155.520 MHz
156.250 MHz
161.132800 MHz
200.000 MHz

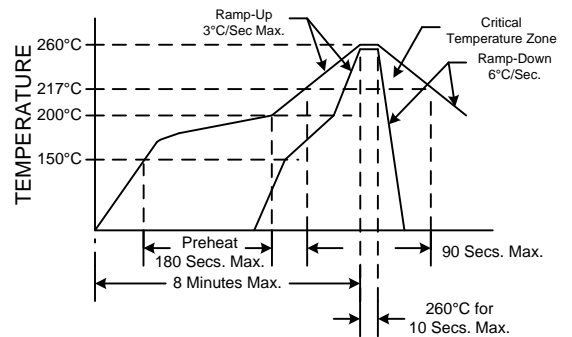
Mechanical:

Shock: MIL-STD-883, Method 2002, Condition B
Solderability: MIL-STD-883, Method 2003
Vibration: MIL-STD-883, Method 2007, Condition A
Solvent Resistance: MIL-STD-202, Method 215
Resistance to Soldering Heat: MIL-STD-202, Method 210, Condition I or J

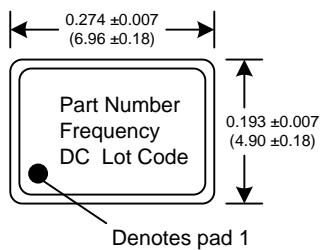
Environmental:

Thermal Shock: MIL-STD-883, Method 1011, Condition A
Moisture Resistance: MIL-STD-883, Method 1004

RECOMMENDED REFLOW SOLDERING PROFILE

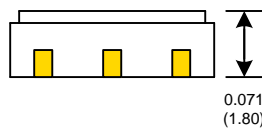


NOTE: Reflow Profile with 240°C peak also acceptable.

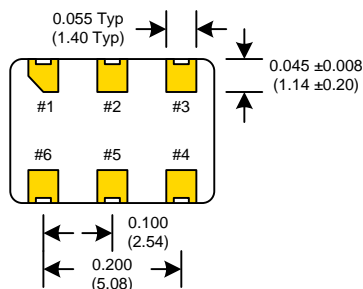


Dimensions inches (mm)

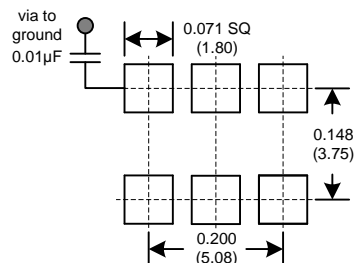
All dimensions are Max unless otherwise specified.



Tristate Function	
Function pin 2	Output pin
Open or N/C	Active
"1" level 0.7xVdd Min	Active
"0" level 0.3xVdd Max	High Z



SUGGESTED PAD LAYOUT



0.01µF Bypass Capacitor Recommended

PIN	Connection
1	Volt Control
2	Enable/Disable
3	GND
4	Output
5	Comp Output
6	Vcc

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