

# LVPECL

## Voltage Controlled Crystal Oscillator

### CVPD-037X Model 5x7 mm SMD, 3.3V, LVPECL

**Frequency Range:** 40.000 to 170.000 MHz  
**Operating Temperature Range:** -40°C to 85°C  
**Storage Temperature Range:** -45°C to 90°C  
**Input Voltage:** 3.3V ± 5%  
**Control Voltage:** 1.65V ± 1.65V  
**Input Current:** 56mA Max  
**Standby Current:** 800uA  
**Output:** PECL  
 Symmetry: 45/55% Max @ zero crossing point  
 Rise/Fall Time: 0.25nSec Typical, 0.5ns Max, (20% to 80%)  
 Pullability APR: ±50ppm Min APR  
 Load: 50 ohms (Vdd-2.0V)  
 Logic "1" Level: 2.275 VDC Min  
 Logic "0" Level: 1.680 VDC Max  
 Modulation BW: 15 kHz Min

**Input Impedance:** 5 Mohm Min  
**Enable Delay Time:** 2 ms Max  
**Disable Delay Time:** 200 ns Max

**Phase Noise (Typical for 160 MHz):**  
 10 Hz Offset: -60 dBc/Hz  
 100 Hz Offset: -90 dBc/Hz  
 1 kHz Offset: -118 dBc/Hz  
 10 kHz Offset: -134 dBc/Hz  
 100 kHz Offset: -144 dBc/Hz  
 1 MHz Offset: -150 dBc/Hz  
 10 MHz Offset: -157 dBc/Hz  
 40 MHz Offset: -157 dBc/Hz



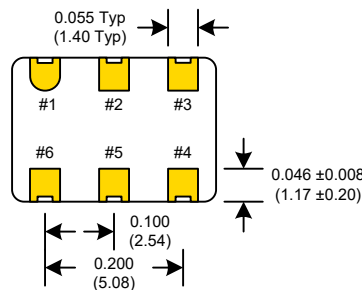
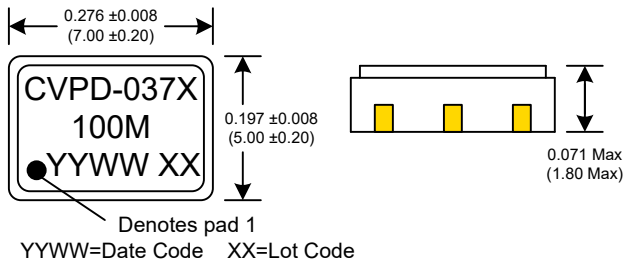
Standard Frequencies (MHz)
100.000
122.880
153.600
156.250

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

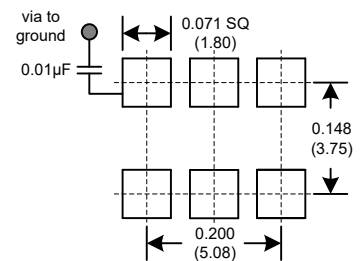
Part Number Example: CVPD-037X-100.000 = 3.3V, ±50ppmAPR, 100 MHz

Dimensions inches (mm)

All dimensions are Max unless otherwise specified.

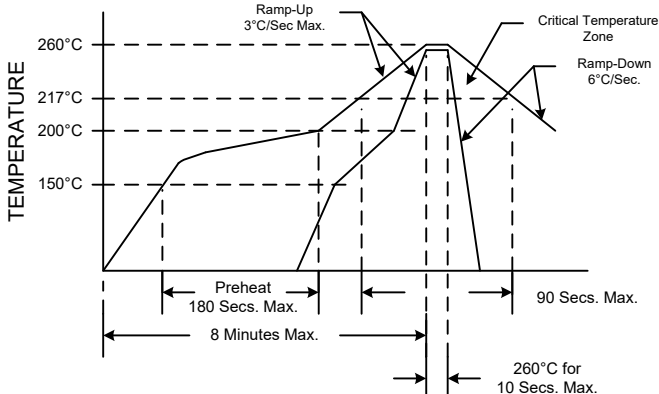


#### SUGGESTED PAD LAYOUT



0.01µF Bypass Capacitor Recommended

#### RECOMMENDED REFLOW SOLDERING PROFILE



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

PIN	Connection
1	Cont. Volt
2	E/D
3	GND
4	Output
5	Comp Output
6	Vcc

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

Available on 16mm Tape and Reel in quantities of 1,000 pcs.

Rev: G  
 Date: 18-Dec-2019  
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