



CRYSTEK
CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

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

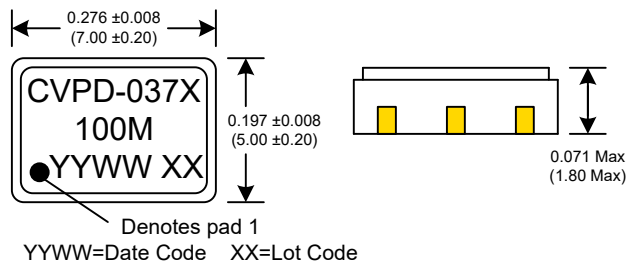
Environmental:

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

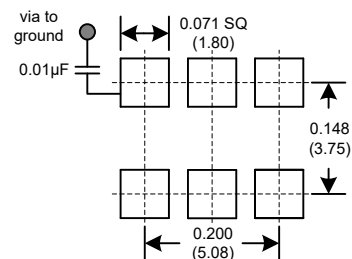
Part Number Example: CVPD-037X-100.000 = 3.3V, ±50ppmAPR, 100 MHz

Dimensions inches (mm)

All dimensions are Max unless otherwise specified.

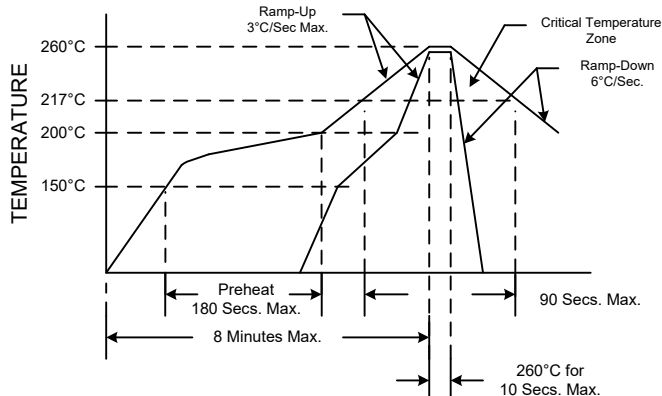


SUGGESTED PAD LAYOUT



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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Crystek:

[CVPD-037X-100](#) [CVPD-037X-122.88](#) [CVPD-037X-153.6](#) [CVPD-037X-156.250](#)