

CCLD-033 Model 5X7 mm SMD, 3.3V, LVDS

Lead Free
RoHS
Compliant

Frequency Range: 77.760MHz to 161MHz
Frequency Stability: ± 25 ppm to ± 100 ppm
Temperature Range: 0°C to 70°C
 (Option M) -20°C to 70°C
 (Option X) -40°C to 85°C
Storage: -55°C to 120°C
Input Voltage: 3.3V $\pm$ 0.3V
Input Current: 35mA Typ, 47mA Max
Output: Differential LVDS
 Symmetry: 45/55% Max @ 50% Vdd
 Rise/Fall Time: 1ns Max @ 20% to 80% Vdd
 Load: 100 Ohms
 Logic: Connected between OUT and COUT
 Output Voltage Levels
 "0" = 1.10V Typical, 0.90V Min
 "1" = 1.45V Typical, 1.65V Max
 Differential Output Voltage
 Disable Time: 200ns Max
 Enable Time: 200ns Max
Phase Jitter: 12KHz to 80MHz 0.5psec Typ., 1ps RMS Max
Aging: <3ppm 1st/yr, <1ppm every year thereafter

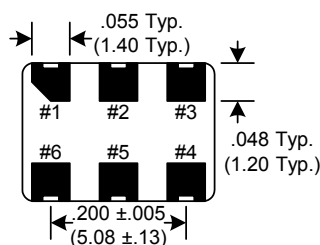
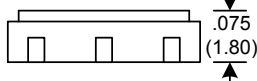
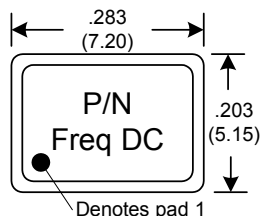
Differential LVDS Clock Oscillator



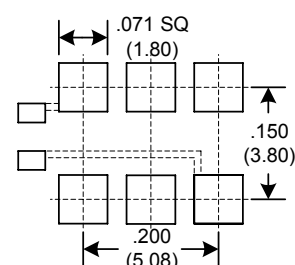
Designed to meet today's requirements for 3.3V LVDS applications. The CCLD-033 uses a high Q fundamental crystal providing very low jitter and phase noise. Also available in 2.5V model. Available on 16mm tape and reel in quantities of 1K.

Dimensions inches (mm)

All dimensions are Max unless otherwise specified.

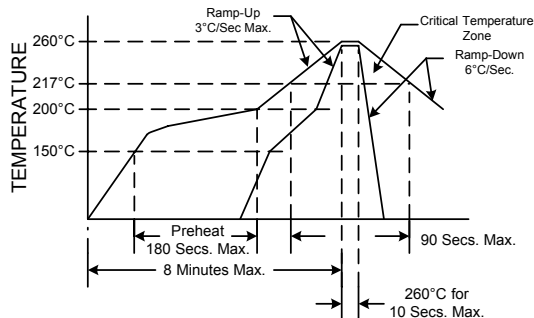


SUGGESTED PAD LAYOUT



Bypass Capacitor Recommended

RECOMMENDED REFLOW SOLDERING PROFILE



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

Pad	Connection
1	E/D
2	N/C
3	GND
4	OUT
5	COUT
6	Vdd

Table 2

Tri-State Function	
E/D pin	Output pin
Open	Active
"1" level 0.7V Min	Active
"0" level 0.3V Max	High Z

Table 3

Crystek Part Number Guide

CCLD-033 X - 25 - 155.520

#1 #2 #3 #4 #5

#1 Crystek 5x7 SMD LVDS Osc.
 #2 Model 033 = 77.760MHz ~ 161MHz
 #3 Temp. Range: Blank = 0/70°C, M = -20/70°C, X = -40/85°C
 #4 Stability: (see Table 1)
 #5 Frequency in MHz: 3 or 6 decimal places

Stability Indicator:

Blank (std) $\pm$ 100ppm
 50 $\pm$ 50ppm
 25 $\pm$ 25ppm

Table 1

Example:
 CCLD-033X-25-155.520 = 3.3V, 45/55, -40/85°C, 25ppm, 155.520 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

Specifications subject to change without notice.

TD-031101 Rev.C



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