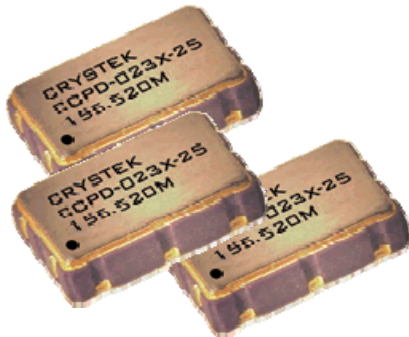


CCPD-023 Model
5×7 mm SMD, 2.5V, LVPECL



Model CCPD-023 is a 77.760MHz to 161.000MHz LVPECL Clock Oscillator operating at 2.5Volts. The oscillator utilizes a High Q Third Overtone crystal design providing very low Jitter and Phase Noise. No Sub-Harmonics are present in the Output Signal.



5×7mm SMD

Applications:

Digital Video
SONET/SDH/DWDM
Storage Area Networks
Broadband Access
Ethernet, Gigabit Ethernet

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CCPD-023 Model

5x7 mm SMD, 2.5V, LVPECL

Frequency Range:	77.760MHz to 161.000MHz
Frequency Stability Options(ppm):	±20, ±25, ±50, ±100
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:	2.5V ± 0.125V
Input Current:	55mA Typ., 88mA Max
Output:	Differential LVPECL
Symmetry:	45/55% Max @ 50% Vdd
Rise/Fall Time:	1nsec Max @ 20% to 80% Vdd

Logic: Terminated to Vdd-2V into 50 Ω

Temp. 0°C to 85°C **“0”=0.690 Min., 1.095 Max**

“1”=1.475 Min., 1.760 Max

Temp. -40°C to 0°C **“0”=0.670 Min., 1.195 Max**

“1”=1.415 Min., 1.620 Max

Disable Time: **200nSec Max**

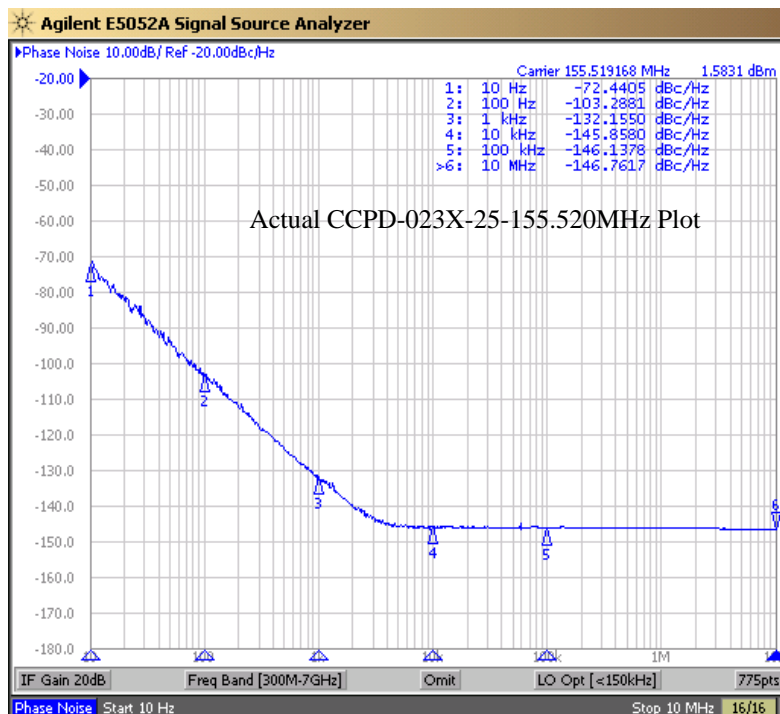
Enable Time: **1mSec Typ., 2mSec Max**

Phase Jitter: 12kHz~80MHz **0.5psec Typ., 1psec RMS Max**

Phase Noise: (See Plot Below)

Sub-harmonics: **None**

Aging: **<3ppm 1st/yr, <1ppm every year thereafter**



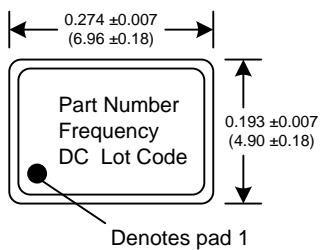
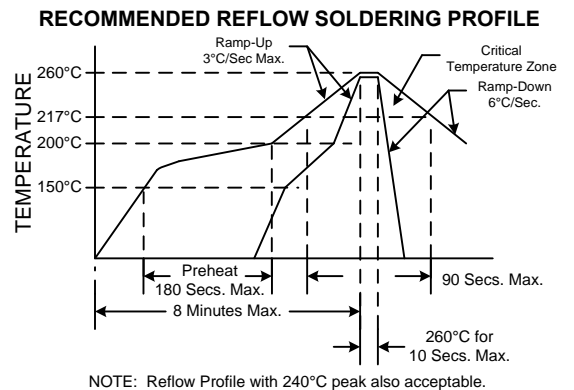
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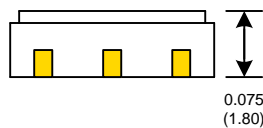
CCPD-023 Model
5x7 mm SMD, 2.5V, LVPECL

Crystek Part Number Guide																
CCPD - 023 X - 25 - 155.520																
#1	#2	#3	#4	#5												
#1 Crystek LVPECL Osc. #2 Model 023 #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																
Example: CCPD-023X-25-155.520 2.5V, -40/85°C, ±25ppm, 155.520 MHz																
			<table border="1"> <thead> <tr> <th colspan="2">Stability Indicator</th> </tr> </thead> <tbody> <tr> <td>Blank</td> <td>± 100ppm</td> </tr> <tr> <td>50</td> <td>± 50ppm</td> </tr> <tr> <td>25</td> <td>± 25ppm</td> </tr> <tr> <td>20*</td> <td>± 20ppm</td> </tr> <tr> <td colspan="2">*not available in -40/85</td> </tr> </tbody> </table>		Stability Indicator		Blank	± 100ppm	50	± 50ppm	25	± 25ppm	20*	± 20ppm	*not available in -40/85	
Stability Indicator																
Blank	± 100ppm															
50	± 50ppm															
25	± 25ppm															
20*	± 20ppm															
*not available in -40/85																
Table 1																

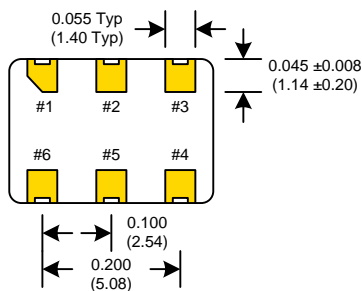
Mechanical:	
Shock:	MIL-STD-883, Method 2002, Condition B
Solderability:	MIL-STD-883, Method 2003
Vibration:	MIL-STD-883, Method 2007, Condition A
Solvent Resistance:	MIL-STD-202, Method 215
Resistance to Soldering Heat:	MIL-STD-202, Method 210, Condition I or J
Environmental:	
Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004



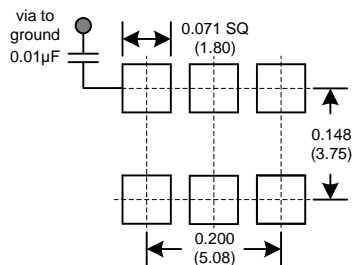
Dimensions inches (mm)
All dimensions are Max unless otherwise specified.



Tristate Function	
Function pin 1	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	Enable/Disable
2	N/C
3	GND
4	Output
5	Comp Output
6	Vcc

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