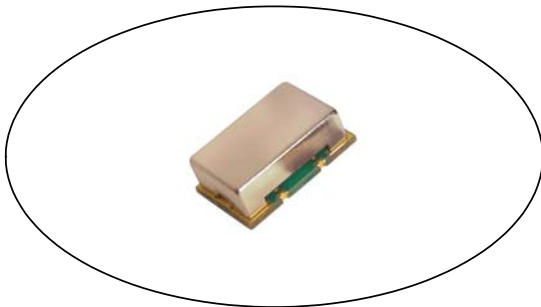




Frequency Range:	50MHz to 500MHz
Temperature Range: (Option X)	± 25ppm, 0°C to 70°C ± 50ppm, -40°C to 85°C
Storage:	-45°C to 90°C
Input Voltage:	3.3V ± 0.3V 5.0V ± 0.5V
Input Current:	30mA Max @ 3.3V 50mA Max @ 5.0V
Output:	True SineWave
Output Power:	0 dBm Min.
Start-up time:	2ms Typ., 10ms Max
2nd Harmonic:	-20dBc Max
Sub-harmonics: (50MHz~170MHz)	None
(171MHz~500MHz)	-55 dBc Typ., -50 dBc Max
Modulation BW:	>10KHz @ -3dB
Period Jitter: (20,000 periods)	<5ps RMS (1-sigma) Max
Phase Jitter: 12KHz~20MHz	<1ps RMS (1-sigma) Max,
50KHz~80MHz	<1ps RMS (1-sigma) Max,
Phase Noise Typ.:	
(@311.04MHz)	10Hz -50 dBc/Hz
	100Hz -80 dBc/Hz
	1KHz -110 dBc/Hz
	10KHz -135 dBc/Hz
	100KHz -145 dBc/Hz
Aging:	<3ppm 1st/yr, <2ppm every year thereafter



Applications:

10 Gigabit Ethernet
OC48: Forward Error Correction
Broadband Networks
SONET/SDH/DWD
ATM
Network/switch
Telecom

Designed using FR5 PCB & HFF crystal technology to provide a Low Noise, Low Jitter Crystal Oscillator with True Sinewave Output.

Specifications subject to change without notice.

TD-041205 Rev. C

Page 1 of 2



CCO-983/985 Model
9X14 mm SMD, 3.3V/5V, SineWave

High Frequency SineWave Osc

Crystek Part Number Guide

CCO-983 X-500.000

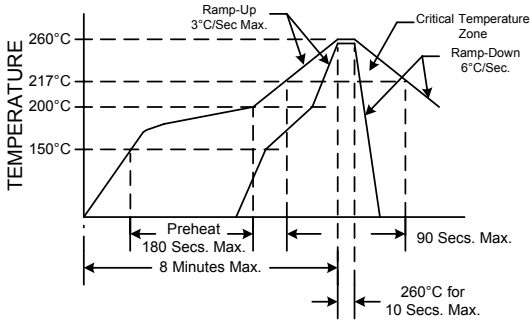
#1 #2 #3 #4

- #1 Crystek 9x14 SMD SineWave Oscillator
- #2 Model 983 = 983=3.3V 985=5.0V
- #3 Temp. Range: Blank = 0/70°C, X=-40/85°C
- #4 Frequency in MHz: 3 or 6 decimal places

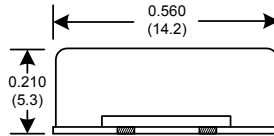
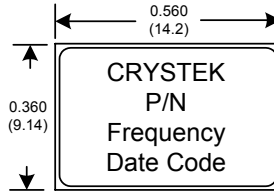
Example:
 CCO-983X-500.000 = 3.3V, -40/85°C, 500.000 MHz

Standard Frequencies MHz	
77.7600	167.3317
155.5200	212.5000
156.2500	250.0000
161.1328	311.0400
166.6286	

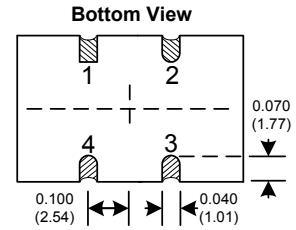
RECOMMENDED REFLOW SOLDERING PROFILE



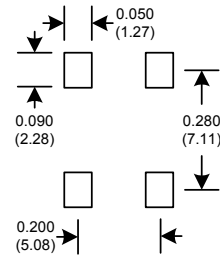
NOTE: Reflow Profile with 240°C peak also acceptable.



Pad	Connection
1	N/C
2	GND
3	OUT
4	Vdd



SUGGESTED PAD LAYOUT



Mechanical:

- Shock:
- Solderability:
- Vibration:
- Solvent Resistance:
- Resistance to Soldering Heat:

- MIL-STD-883, Method 2002, Condition B
- MIL-STD-883, Method 2003
- MIL-STD-883, Method 2007, Condition A
- MIL-STD-202, Method 215
- MIL-STD-202, Method 210, Condition I or J

Environmental:

- Thermal Shock:
- Moisture Resistance:

- MIL-STD-883, Method 1011, Condition A
- MIL-STD-883, Method 1004

Packaging:

- Tape/Reel: 100ea, 250ea, 500ea 24mm Tape

Specifications subject to change without notice.

TD-041201 Rev. C

Page 2 of 2



Crystek Crystals Corporation

12730 Commonwealth Drive • Fort Myers, FL 33913
 239.561.3311 • 800.237.3061 • FAX: 239.561.1025 • www.crystek.com