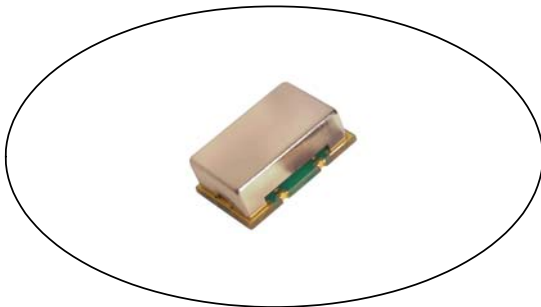




<b>Frequency Range:</b>	50MHz to 500MHz
<b>Temperature Range:</b> (Option X)	± 25ppm, 0°C to 70°C ± 50ppm, -40°C to 85°C
<b>Storage:</b>	-45°C to 90°C
<b>Input Voltage:</b>	3.3V ± 0.3V 5.0V ± 0.5V
<b>Input Current:</b>	30mA Max @ 3.3V 50mA Max @ 5.0V
<b>Output:</b>	True SineWave
Output Power:	0 dBm Min.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

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

# High Frequency SineWave Osc

### Crystek Part Number Guide

**CCO-983 X-500.000**

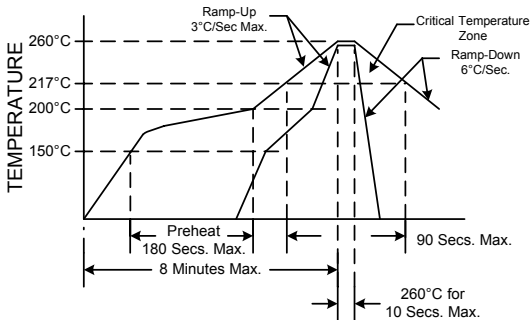
#1 #2 #3 #4

- #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

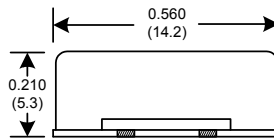
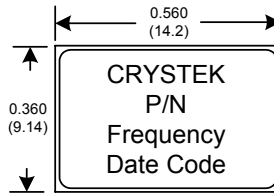
Example:  
 CCO-983X-500.000 = 3.3V, -40/85°C, 500.000 MHz

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

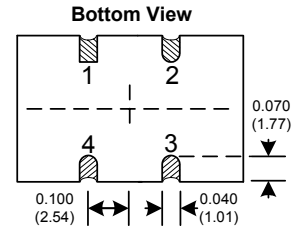
### RECOMMENDED REFLOW SOLDERING PROFILE



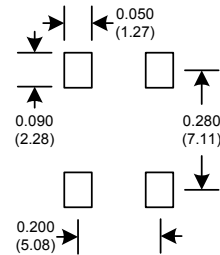
NOTE: Reflow Profile with 240°C peak also acceptable.



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

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