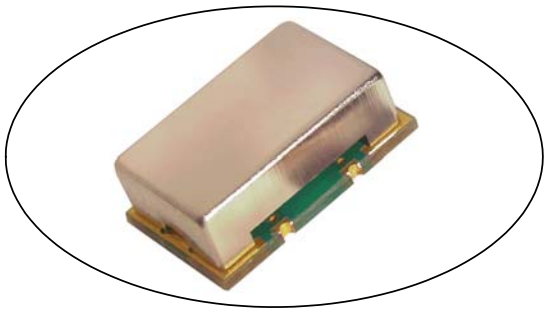
CVHD-931 Model
9X14 mm SMD, **3.3V, CMOS**

High Performance CMOS VCXO

Lead Free RoHS Compliant

Frequency Range:		50MHz to 180MHz
Temperature Range:		0°C to 70°C
	(Option X)	-40°C to 85°C
Storage:		-55°C to 105°C
Input Voltage:		3.3V ± 0.3V
Control Voltage:		1.65V ± 1.65V
Settability At Nominal:		1.65V ± 0.25V
Input Current:		25mA Max
Output:		CMOS
	Symmetry:	47.5/52.5 Typical, 45/55% Max
	Rise/Fall Time:	5ns Max @ 20% to 80% Vcc
	Pullability APR:	±50ppm Min.
	Linearity:	± 10% Max
	Load:	30pF Max
	Logic "1" Level:	90% Vdd Max
	Logic "0" Level:	10% Vdd Min.
	Start-up time:	2ms Typ., 5ms Max
Modulation BW:		>10KHz @ -3dB
Sub-harmonics:		none
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 Typical:	100Hz	-80 dBc/Hz
	1KHz	-110 dBc/Hz
	10KHz	-140 dBc/Hz
	100KHz	-150 dBc/Hz
Aging:		<3ppm 1st/yr, <2ppm every year thereafter



Applications:

- Broadband Networks
- SONET/SDH/DWD
- ATM
- Network/switch
- Telecom

Designed using FR5 PCB & Fundamental AT crystal technology to provide a Low Noise, Low Jitter Voltage Controlled Crystal Oscillator solution at a competitive price.

Specifications subject to change without notice.

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

CVHD-931 Model
9X14 mm SMD, **3.3V, CMOS**

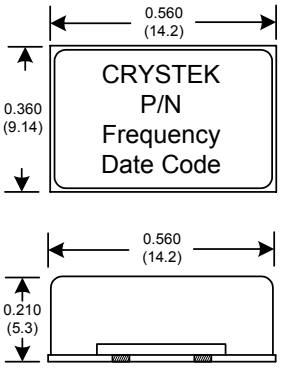
High Performance VCXO

Crystek Part Number Guide

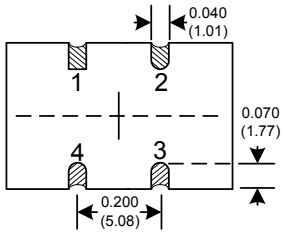
CVHD-931 X-80.000
#1 #2 #3 #4

#1 Crystek 9x14 SMD CMOS VCXO
#2 Model 931 = High Performance 3.3V
#3 Temp. Range: Blank = 0/70°C, X=-40/85°C
#4 Frequency in MHz: 3 or 6 decimal places

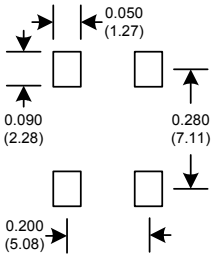
Example:
CVHD-931X-100.000 = 3.3V, -40/85°C, 100 MHz



Bottom View



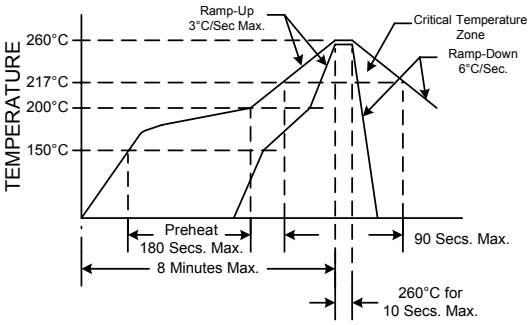
SUGGESTED PAD LAYOUT



Lead Free RoHS Compliant

Pad	Connection
1	Volt Cont.
2	GND
3	OUT
4	Vdd

RECOMMENDED REFLOW SOLDERING PROFILE



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

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

Packaging:

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

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