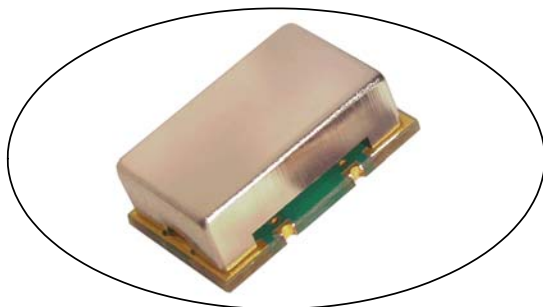




Frequency Range:	50MHz to 180MHz
Temperature Range: (Option X)	0°C to 70°C -40°C to 85°C
Storage:	-55°C to 105°C
Input Voltage:	3.3V ± 0.3V
Control Voltage:	1.65V ± 1.65V
Settability At Nominal:	1.65V ± 0.25V
Input Current:	25mA Max
Output:	CMOS
Symmetry:	47.5/52.5 Typical, 45/55% Max
Rise/Fall Time:	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.

TD-040301 Rev. B

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

High Performance VCXO

Crystek Part Number Guide

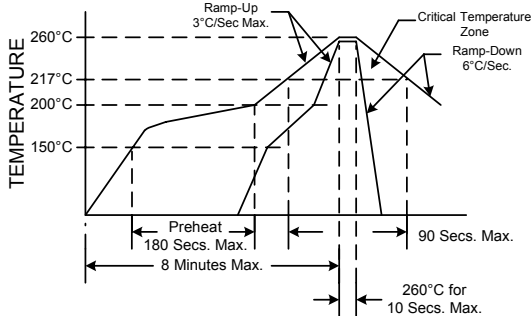
CVHD-931 X-80.000

- #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

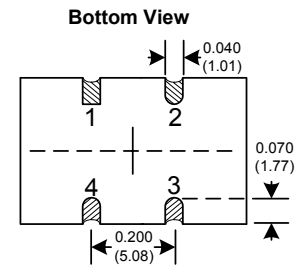
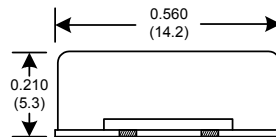
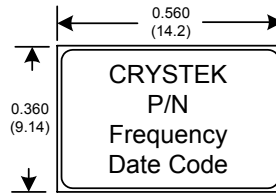
Example:
 CVHD-931X-100.000 = 3.3V, -40/85°C, 100 MHz



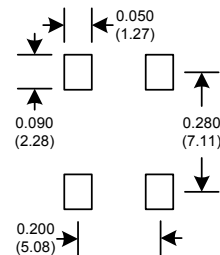
RECOMMENDED REFLOW SOLDERING PROFILE



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



SUGGESTED PAD LAYOUT



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

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

Specifications subject to change without notice.

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