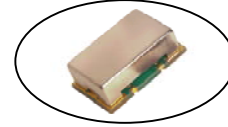


Ultra-Low Phase Noise Voltage Controlled Crystal Oscillator

Part Number 603253

9×14 mm SMD, 3.3V, CMOS

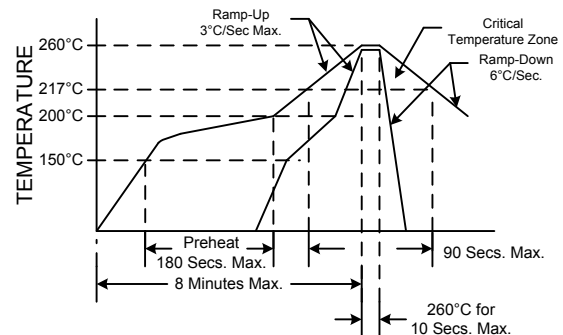
Frequency: 96.000 MHz
Temperature Range: -40°C to 85°C
Storage: -45°C to 90°C
Input Voltage: 3.3V ±0.3V
Supply Pushing: 1.2ppm/V Typical
Input Current: 15mA Typical, 25mA Max
Output: CMOS
 Symmetry: 45/55% Max @ 50% Vdd
 Rise/Fall Time: 3ns Max @ 20% to 80% Vdd
 Logic: "0" = 10% Vdd Max
 "1" = 90% Vdd Min
 Load: 15pF
 Output current: ±24mA Max



Input:
 Modulation Bandwidth: >10kHz @ -3dB
 Impedance: 51 kΩ
 Control Voltage: 1.65V ±1.65V
Frequency Pulling: ±20ppm APR Min (Inclusive of frequency stability, calibration, and aging)
Linearity: ±5% Max
Phase Jitter (12kHz to 20MHz): 40fs Typical
Phase Noise (Typical):
 1kHz: -140 dBc/Hz
 10kHz: -155 dBc/Hz
 100kHz: -164 dBc/Hz
 1MHz: -168 dBc/Hz
Phase Noise Floor: -168 dBc/Hz Typical, -164 dBc/Hz Max
Sub-Harmonics: None
Aging: <3ppm 1st year, <1ppm every year thereafter

Note: Crystal is chip bonded internally
 Original Part Number: CVHD-950X-96.000

RECOMMENDED REFLOW SOLDERING PROFILE



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

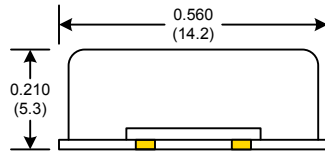
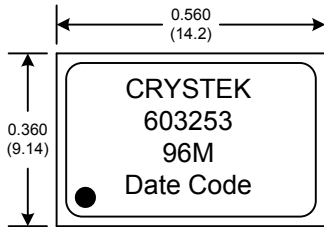
Absolute Maximum Ratings		
Parameter	Rating	Unit
Input Supply Voltage	+6.0	V
Input Control Voltage	+10.0	V

PN:603253 Rev. A

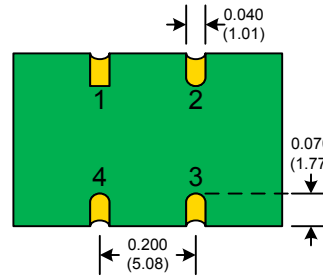
Ultra-Low Phase Noise Voltage Controlled Crystal Oscillator

Part Number 603253

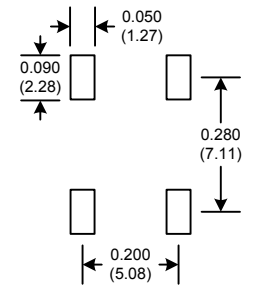
9×14 mm SMD, 3.3V, CMOS



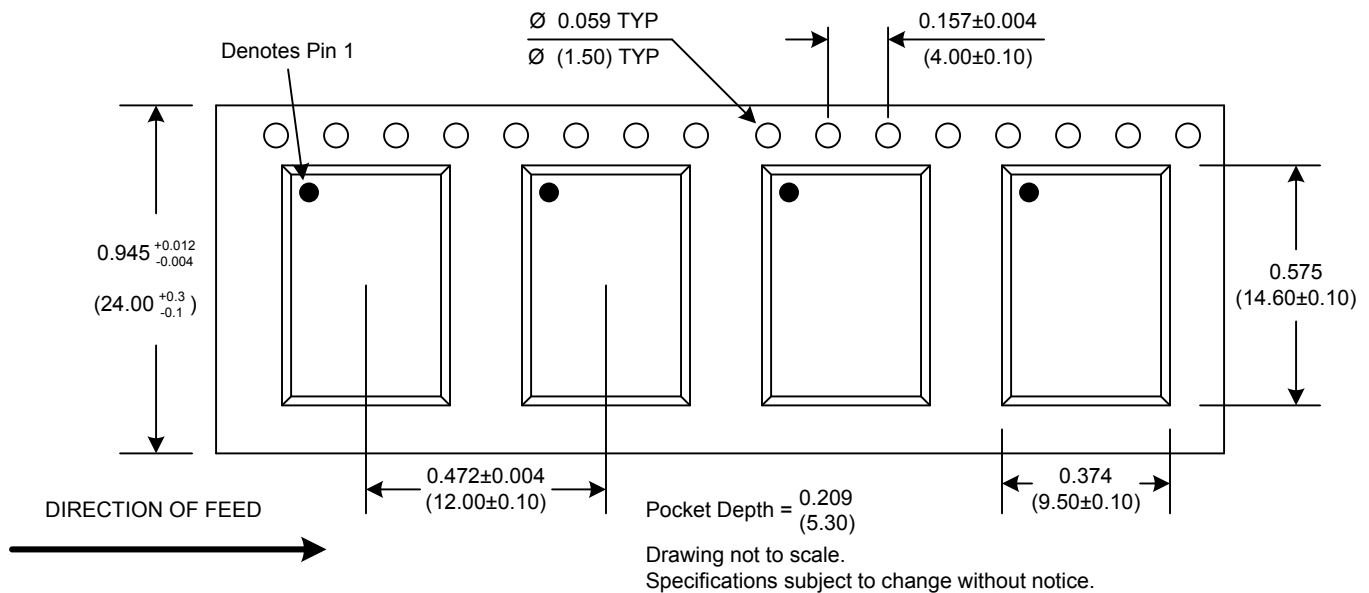
Pad	Connection
1	Volt Cont.
2	GND
3	OUT
4	Vdd



SUGGESTED PAD LAYOUT



TAPE AND REEL



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

PN:603253 Rev. A