

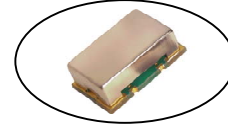


# Ultra-Low Phase Noise Voltage Controlled Crystal Oscillator

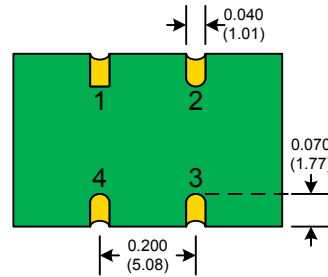
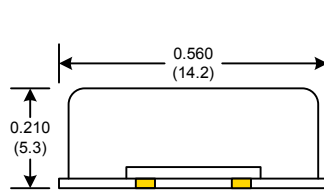
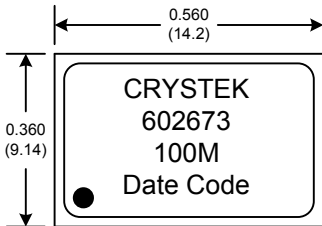
**Part Number 602673**

**9x14 mm SMD, 3.3V, CMOS**

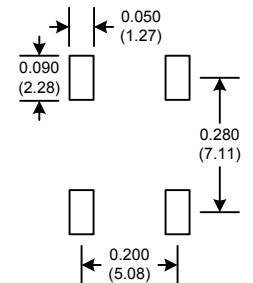
**Frequency:** 100.000 MHz  
**Temperature Range:** -20°C to 70°C  
**Storage:** -45°C to 90°C  
**Input Voltage:** 3.3V ±0.3V  
**Input Current:** 15mA Typ, 25mA Max  
**Output:** CMOS  
 Symmetry: 45/55% Max @ 50% Vdd  
 Rise/Fall Time: 3ns Max @ 20% to 80% Vdd  
 Logic: "0" = 10% Vdd Max  
 "1" = 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:** ±10% Max  
**Phase Jitter (12kHz to 80MHz):** 0.13psec Typ., @ 100MHz  
**Phase Noise (Typical):**  
 1kHz: -135 dBc/Hz  
 10kHz: -155 dBc/Hz  
 100kHz: -164 dBc/Hz  
 1MHz: -165 dBc/Hz  
**Phase Noise Floor:** -165 dBc Typ., -160 dBc Max  
**Sub-Harmonics:** None  
**Aging:** <3ppm 1st/yr, <1ppm every year thereafter

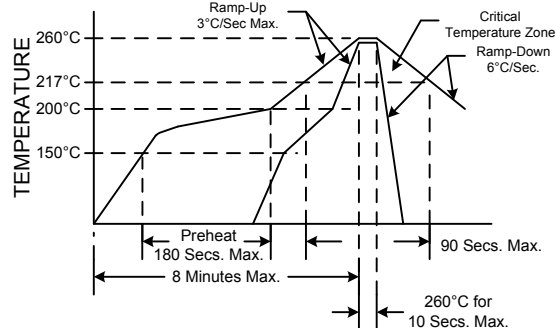


**SUGGESTED PAD LAYOUT**



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

**RECOMMENDED REFLOW SOLDERING PROFILE**



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

PN:602673 Rev. B