

## 5 x 3.2 x 1.2mm 4 pad SMD CMOS

- Frequency range 0.625MHz to 50.0MHz
- CMOS/TTL Output
- Supply Voltage 5.0 V or 3.3 VDC
- Integrated Phase Jitter 1ps typical
- Low cost unit



### SUPPLY VOLTAGE DEPENDENT SPECIFICATION

Model:	'G' Series	
Input Voltage:	Vdd = +3.3VDC±5%	Vdd = +5.0VDC±10%
Frequency Range*:	0.625MHz ~ 50.0MHz	1.0MHz ~ 50.0MHz
Output Wave Form:	CMOS/TTL	
Initial Freq. Accuracy	Tune with Vc = 1.65V±0.2V	Tune with Vc = 2.5V±0.2V
Output Logic High '1'	90% Vdd min.	
Output Logic Low '0'	10% Vdd max.	
Frequency Deviation Range:	Standard ±80ppm min.	Standard ±80ppm min.**
Control Voltage Centre:	1.65 VDC	2.5 VDC
Control Voltage Range:	0.3V to 3.0V	0.5V to 1.5V

\* 'G' series VCXOs use fundamental mode crystals throughout the frequency range

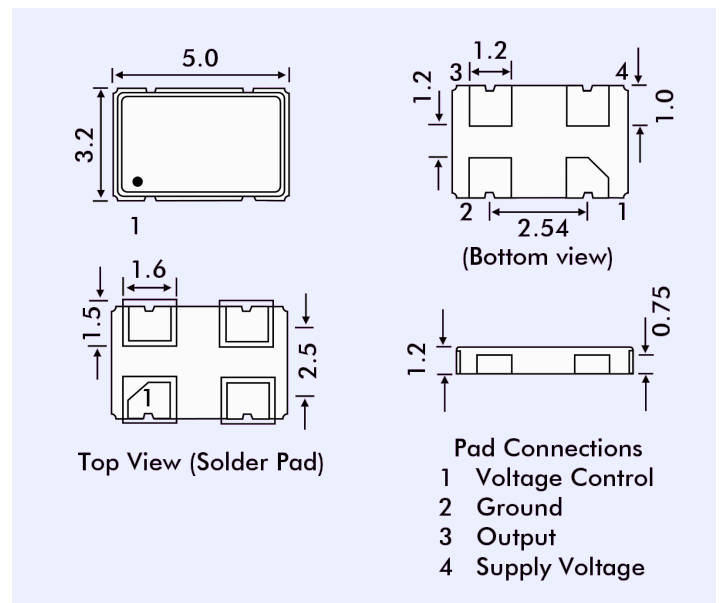
\*\* ±200ppm pull range is available with 5.0 Volt supply 'G' series VCXOs

### GENERAL SPECIFICATION

Frequency Stability:	See table
Output Load	TTL: 2 TTL gates CMOS: 15pF
Rise/Fall Times	TTL: 6ns max., 4ns typical Measured between 0.4V to 2.4V CMOS: 6ns max., 4ns typical Measured between 20% to 80% of wave form, (CL = 15pF)
Duty Cycle:	50%±10% standard, 50%±5% is available, add 'S' to part number
Integrated Phase Jitter:	1ps max. (12kHz to 20MHz)
Period Jitter RMS:	2.0ps typical
Period Jitter Peak to Peak:	14ps max.
Start-up Time:	10ms max., 5ms typical
Current Consumption***:	Frequency dependant (See note)
Linearity:	6% typical, 10% max.
Modulation Bandwidth:	10kHz min. Measured at -3dB with V control at 1.65V or 2.5V
Input Impedance:	1MΩ typical
Slope Polarity:	Monotonic and positive (An increase of control voltage increases output frequency.)
Ageing:	±5ppm per year max.

\*\*\* Current consumption is frequency dependent, e.g. at 27MHz = 10mA typical with supply voltage 3.3V, and 20mA typical with supply voltage = 5.0V.

### OUTLINE AND DIMENSIONS

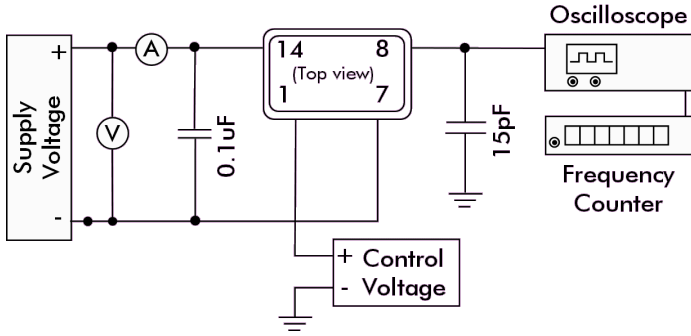


### FREQUENCY STABILITY OVER TEMPERATURE

Frequency Stability over Operating Temp. Range*	±25ppm	±50ppm	±100ppm
Commercial -10° to +70°C	A	B	C
Industrial -40 to +85°C	D	E	F

\* If non-standard temperature stability is required enter the desired stability in ppm after either 'C' (-10° to +70°) or 'I' (-40° to +85°C)  
Example: 'C20' = ±20ppm over -10 to +70°C

CMOS/TTL TEST CIRCUIT



PART NUMBER SCHEDULE

Example: 3G534B-80N-27.000

- Supply Voltage
  - 3 = +3.3V
  - 5 = +5.0 V
- Series Designator
  - G534
- Stability over temperature range
  - A = ±25ppm over -10° to +60°C
  - B = ±50ppm over -10° to +60°C
  - C = ±100ppm over -10° to +60°C
  - D = ±25ppm over -40° to +85°C
  - E = ±50ppm over -40° to +85°C
  - F = ±100ppm over -40° to +85°C
- Pullability in ±ppm
- Pullability determinant
  - N = minimum
  - M = maximum
  - T = Typical
- Frequency in MHz

TRANSFER FUNCTION

Typical response of 5G14-C-150N-27.000  
(at 25°C, positive transfer)

