

Temperature Compensated Crystal Oscillator

- Excellent frequency stability
- Miniature size, reflow soldering available
- Clipped sine output, tight specifications and an internal trimmer
- Suited for communications equipment, cellular radios, and instrumentation.

TO519

Specifications:

Frequency Range: 10.000 MHz ~ 20.0000 MHz

Operating Temperature:

0°C ~ +55°C	- A
-10°C ~ +60°C	- B
-20°C ~ +70°C	- C
-30°C ~ +75°C	- D
-40°C ~ +85°C	- U

Storage Temperature: -40°C ~ +85°C

Frequency Stability:

Vs. Temperature:	± 5.0 ppm
	± 3.0 ppm
	± 2.5 ppm
Vs. Input Voltage:	± 0.2 ppm at voltage ± 5%
Vs. Load:	± 0.2 ppm at load ± 10%
Aging:	± 1.0 ppm max first year

Pulling Range:

V_{ss}+0.5V ~ V_{cc} -0.5V: 5 ~ 16 ppm/V (optional)
Control Slope: Positive

Start-Up Time: 8 ms max

Output Waveform: Clipped Sine, 10KΩ//10pF

Output Voltage: 0.8 V_{p-p} min.

2nd Harmonics: -15.0 dBc max.

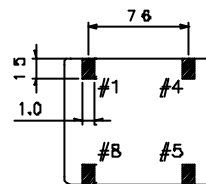
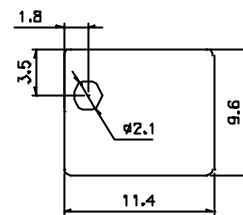
SSB Phase Noise: -125 dBc/Hz (offset 1KHz)

Frequency Adjustment: ± 3.0 ppm min with internal trimmer

Supply Voltage: +3.3 VDC (± 0.2%)
+5.0 VDC (± 0.3%) - P

Supply Current: 2.0 mA max

TO-I



Pin	Configurations
#1	VC or NC
#4	Ground
#5	Output
#8	Supply V _{DD}

All dimensions are in mm

Ordering Information

Product name + Operating Temperature +
Stability + Frequency (MHz) + Other
Specification Code.

i.e. TO519B2.5-8.0MHz ±2.5ppm/-10°C~+60°C/3.3V
Or TO519D2.5P-8.0MHz ±2.5ppm/-30°C~+75°C/5.0V

Note:

1. Other frequencies, stabilities, and operating temperature ranges available. Consult VTC Support for specific requirements.
2. Not all combinations of the above, stabilities, and temperature ranges are available. Consult VTC Support if your requirement is not standard.
3. All specifications subject to change without notice.