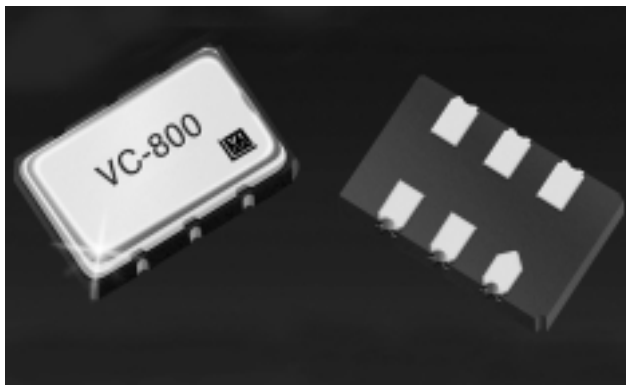


Voltage Controlled Crystal Oscillators

VC-800



Description:

The VC-800 Voltage Controlled Crystal Oscillator (VCXO) is a quartz stabilized square wave generator with a CMOS output and is tested at CMOS and TTL logic levels (5 volt operation).

Features:

- Worlds Smallest VCXO, 3.2 x 5.0 x 1.5mm
- Frequencies to 51.84 MHz
- 5 or 3.3 V operation
- Tri-State Output
- Low jitter < 6ps rms (output frequencies >12 MHz)
- VCXO with CMOS outputs
- 0/70 or -40/85 °C temperature range
- Hermetically sealed ceramic SMD package

Performance Characteristics

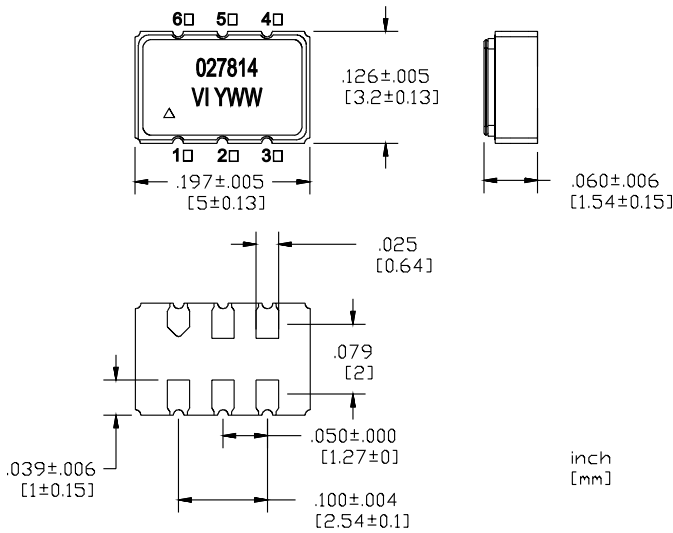
Parameter	Symbol	Minimum	Typical	Maximum	Units
Frequency	f_o	1.544		51.84	MHz
Supply Voltage ¹	V_{DD}	2.97 4.5	3.3 5.0	3.63 5.5	V
Supply Current	I_{DD}		12	25	mA
Output Logic Levels					
Output Logic High	V_{OH}	0.9* V_{DD}			V
Output Logic Low	V_{OL}			0.1* V_{DD}	
Transition Times					
Rise Time	t_R			5	ns
Fall Time	t_F			5	ns
Symmetry or Duty Cycle ²	SYM	40	50	60	%
Operating temperature (ordering option)		0/70 or -40/85			°C
Test Conditions for APR (+5V option)	V_C	0.5		4.5	V
Test Conditions for APR (+3.3V option)	V_C	0.3		3.0	V
Absolute Pull Range (ordering option)	APR	+/-50 +/- 80			ppm
Gain Transfer		Positive			
Control Voltage Leakage Current	I_{vcxo}			±1	uA
Control Voltage Bandwidth (-3dB)	BW	10			kHz
Package Size		3.2 x 5.0 x 1.5			mm

1. A 0.01uF and a 0.1uF capacitor should be located as close to the supply as possible (to ground) is recommended.
2. Symmetry is defined as (ON TIME/PERIOD with $V_s = 1.4$ V for TTL and $V_s=2.5$ V for CMOS, 5 volt operation, and $V_s=1.65$ V for 3.3 Volt operation.

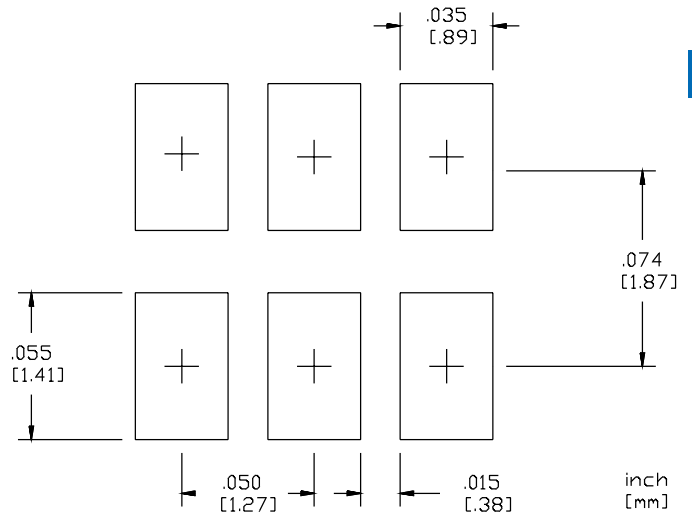
Voltage Controlled Crystal Oscillators

VC-800

Outline Drawing



Pad Layout



VCXO

Pin Out Information

Pin	Symbol	Function
1	Vc	Control Voltage
2	Tri-state	Tri-state
3	GND	Ground
4	f _o	Output Frequency
5	CMOS/TTL	CMOS/TTL
6	V _{DD}	Supply Voltage

Standard Frequencies (MHz)

4.096	8.192	12.960	13.500	16.000
16.384	17.664	25.920	27.000	32.000
32.768	35.328	44.736	51.840	

Ordering Information

