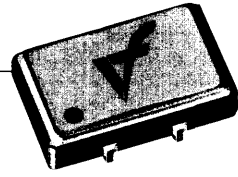


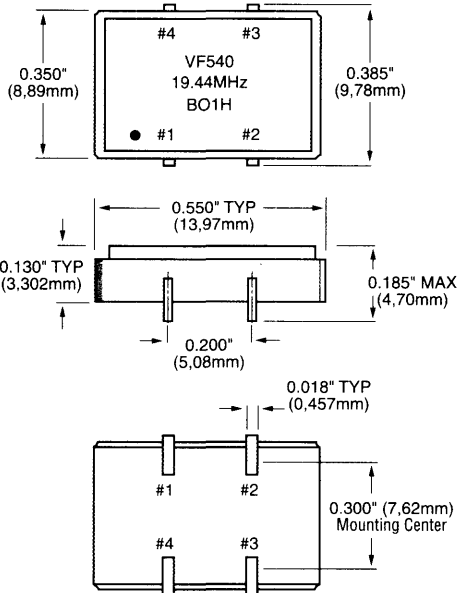
VF540



HCMOS/TTL Compatible Surface Mount Clock Oscillators

FEATURES

- Very Low Phase Jitter at All Frequencies
- EMI Shielded
- Tight Duty Cycle Available
- Tristate Control Standard
- Industry Standard Footprint



All dimensions are typical unless otherwise specified.

Creating a Part Number

VF540 [] [] - [] - **FREQ.**

FREQUENCY STABILITY	
Code	Specification
S	±20 ppm
A	±25 ppm
B	±50 ppm
H	±100 ppm (std.)
C	±500 ppm

OPERATIONAL TEMP. RANGE	
Code	Specification
	0°C to +70°C (std.)
1	-40°C to +85°C
2	-55°C to +125°C*

*Not always available

DUTY CYCLE	
Code	Specification
HH	±2.5%
H	±5%
	±10% (std.)

INPUT VOLTAGE	
Code	Specification
L	3.3 ±5% Volt
	5.0 ±5% Volt (std.)

Example: VF540AHH-2-19.44MHz; Frequency Stability ±25ppm, Duty Cycle ±2.5%, Input Voltage 5.0 Volt ±5%, Operating Temperature -55°C to +125°C, Frequency 19.44MHz.

	Parameter	Symb	Condition	Min	Typ	Max	Unit	Note
Absolute Max. Ratings	Input Break Down Voltage	V _{cc}		-0.5		7.0	V	
	Storage Temp.	T _s		-55		+125	°C	
Electrical	Frequency Range	F		1.5		130	MHz	
	Frequency Stability	ΔF/F	Overall conditions including: calibration, temp., aging 10 yrs, shock, vibration			±100	ppm	1
	Input Voltage	V _{cc}		4.75 3.15	5.00 3.30	5.25 3.45	V	Standard LV Opt.
	Input Current	I _{cc}	15pF load, 50 MHz			40	mA	2
	Load	10 TTL gates or 50pF max.						
	Duty Cycle (Symmetry)		@1.4V	40	50	60	%	3
	Rise/Fall Time	T _r /T _f	0.4V to 2.4V 20% to 80%			1.5 4.0	ns	
	Logic "1" Level	V _{oh}	Max Load	0.9V _{cc}			V	
	Logic "0" Level	V _{ol}	Max Load			0.1V _{cc}	V	
	Start-up Time	T _s			2	10	ms	
Phase Jitter		1σ			1	ps	f _j > 1KHz	
Tristate Function	Input HIGH (>2.5V) or floating: ACTIVE Input LOW (<0.5V): INFINITE IMPEDANCE							
Enable/Disable Time	T _e /T _d				100	ns		
Environmental and Mechanical	Operating Temperature Range	0°C to +70°C (-40°C to +85°C, -55°C to +125°C available)						
	Mechanical Shock	Per MIL-STD-202, Method 213, Cond. E						
	Thermal Shock	Per MIL-STD-883, Method 1011, Cond. A						
	Vibration	Per MIL-STD-883, Method 2007, Cond. A						
	Soldering Conditions	260°C, for 10s, Max; 230°C, for 90s, Max.						
Hermetic Seal	Leak rate less than 5 x 10 ⁻⁸ atm.cc/s of helium							
Electrical Connections	Pin Out	Pin #1—Tristate Control Pin #3—Output		Pin #2—Ground, Case Pin #4—V _{cc}				

Notes:

1. Up to ±20ppm available.
2. Current is load and frequency dependent.
3. Standard symmetry, tighter available.

All specifications are subject to change without notice.