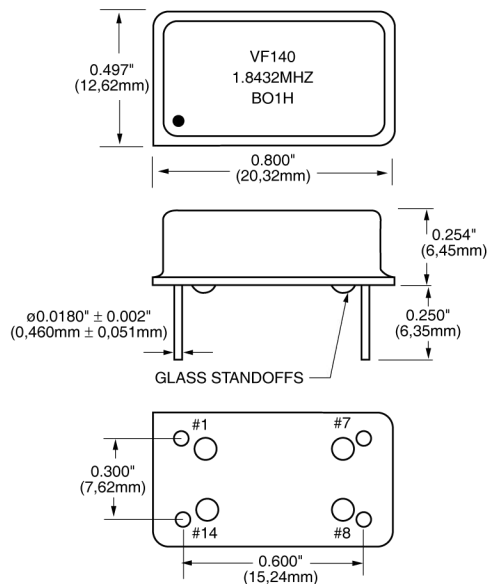


VF140

HCMOS/TTL Compatible
Clock Oscillators

FEATURES

- Tristate Output Available
- Low Cost
- Industrial and Military Temperature Available
- Wide Frequency Range
- Very Low Phase Jitter



All dimensions are typical unless otherwise specified.

Creating a Part Number

VF140 [] [] [] [] **FREQ.**

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

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

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

LEAD CONFIGURATION	
Code	Specification
G	Gull Wing
	Through hole

OUTPUT	
Code	Specification
T	Tristate
	Std.

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

Example: VF140BL-1-1.8432MHz: Frequency Stability ±50ppm, Duty Cycle ±10%, Input Voltage 3.3 Volt ±5%, Operating Temperature -40°C to +85°C, Output Non-Tristate, Lead Configuration Straight, Frequency 1.8432MHz.

	Parameter	Symb	Condition	Absolute Max. Ratings			Unit	Note
				Min	Typ	Max		
Electrical	Input Break Down Voltage	V _{cc}		-0.5		7.0	V	
	Storage Temp.	T _s		-55		+125	°C	
	Frequency Range	F		0.2		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	Std. LV Opt.
	Input Current	I _{cc}	F = 50MHz 15pF, load V _{cc} 5V			40	mA	2
	Load	10 TTL gates or 50pF Max.						
	Duty Cycle		@1.4V	40	50	60	%	3
	Rise/Fall Time	Tr/Tf	0.4V to 2.4V 20% to 80%			1.5 4.0	ns	
	Logic "1" Level	V _{oh}	Max Load	0.9V _{cc}			V	
Environmental and Mechanical	Logic "0" Level	V _{ol}	Max Load			0.1V _{cc}	V	
	Start-up Time	T _s			2	10	ms	
	Phase Jitter		1σ			1	ps	fj>1KHz
	Tristate Function	Input HIGH (>2.5V) or floating: ACTIVE Input LOW (<0.5V): INFINITE IMPEDANCE						
	Enable Time					100	ns	
	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.						
Electrical Connections	Hermetic Seal	Leak rate less than 5 x 10 ⁻⁸ atm.cc/s of helium						
	Pin Out	Pin #1-Tristate Control or N/C Pin #7-Ground, Case Pin #8-Output Pin #14-V _{cc}						

Notes:

1. Standard frequency stability (±20, ±25, ±50, others available).
2. Current is load and frequency dependent.
3. Tighter duty cycles available.

All specifications are subject to change without notice.