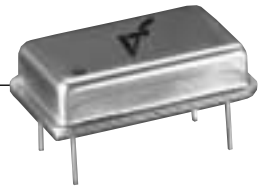
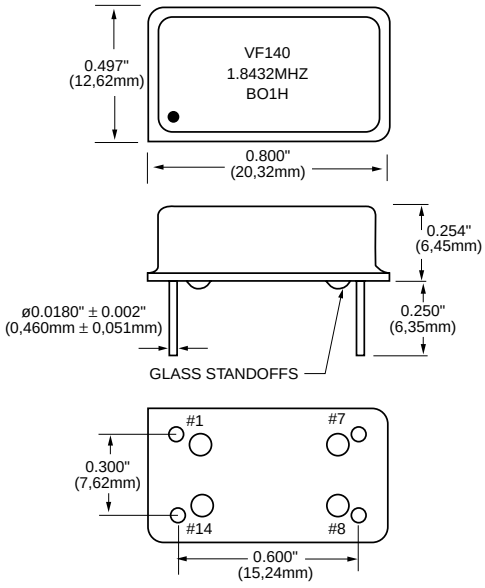
VF140



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.

	Parameter	Symb	Condition	Min	Typ	Max	Unit	Note
Absolute Max. Ratings	Input Break Down Voltage	Vcc		–0.5		7.0	V	
	Storage Temp.	Ts		–55		+125	°C	
Electrical	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	Vcc		4.75 3.15	5.00 3.30	5.25 3.45	V	Std. LV Opt.
	Input Current	Icc	F = 50MHz 15pF, load Vcc 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	Voh	Max Load	0.9Vcc			V	
	Logic "0" Level	Vol	Max Load			0.1Vcc	V	
	Start–up Time	Ts			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	
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.						
	Hermetic Seal	Leak rate less than 5 x 10^{-8} atm.cc/s of helium						
Electrical Connections	Pin Out	Pin #1–Tristate Control or N/C Pin #3–Output			Pin #2–Ground, Case Pin #4–Vcc			

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.

Creating a Part Number

VF140 ☐☐☐-☐-☐☐-**FREQ.**

FREQUENCY STABILITY		
Code	Specification	
S	±20	ppm
A	±25	ppm
B	±50	ppm
	±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.)

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

OUTPUT	
Code	Specification
T	Tristate
	Std.

LEAD CONFIGURATION	
Code	Specification
G	Gull Wing
	Through hole

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.

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