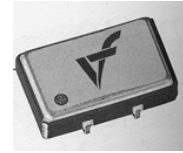
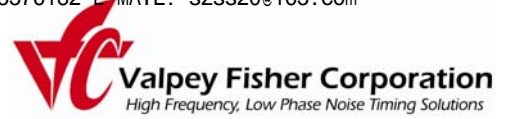


# VFAC570

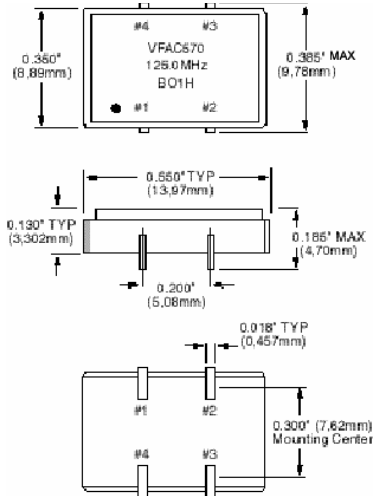
## HCMOS/TTL Compatible

### Surface Mount Clock Oscillators



#### Features

- Wide Frequency Range
- Very Low Phase Jitter
- EMI Shielded
- Tight Duty Cycle Available
- Wide Temperature Range (-55 °C to ± 125 °C) Available
- Tristate Control Standard



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	V		
	Storage Temp.	Ts	-55		+125	°C		
	Frequency Range	F	4.0		160	MHz		
Frequency Stability	ΔF/F	Overall conditions including: calibration, temp., aging 10 yrs, shock, vibration			±100	ppm	1	
Electrical	Input Voltage	Vcc	4.75 3.15	5.00 3.30	5.25 3.45	V	Std LV Opt.	
	Input Current	Icc	F = 100MHz 15pF Load		50	mA	2	
	Load	10 TTL gates or 50pF MAX, AC coupled 50 Ohm termination recommended						
	Duty Cycle		@1.4V @50%Vcc	40 40	50 50	60 60	% %	3
	Rise/Fall Time	Tr/Tf	0.4V to 2.4V 20% to 80%			1.5	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/Disable Time	Ts				100	ns		
Environmental and Mechanical	Operating Temperature Range	0°C to +70°C (-40°C to +85°C, and -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 rates less than 5 x 10 <sup>-8</sup> atm.cc/s of helium						
	Pin Out	Pi#1-Tristate Control Pin #3-Output	Pin #2-Ground Case Pin #4-Vcc					

Creating a Part Number

**VFAC570** [ ] [ ] [ ] - [ ] - **FREQ.**

FREQUENCY STABILITY		OPERATIONAL TEMP. RANGE	
Code	Specification	Code	Specification
S	±20 ppm		0°C to +70°C (std.)
A	±25 ppm	1	-40°C to +85°C
B	±50 ppm	2	-55°C to +125°C
	±100 ppm (std.)		
C	±500 ppm		

\*Not always available

DUTY CYCLE		INPUT VOLTAGE	
Code	Specification	Code	Specification
HH	±2.5%	L	3.3 Volt
H	±5%		5.0 Volt (std.)
	±10% (std.)		

Example: VFAC570BHHL-1-125.000MHz: Frequency Stability ±50ppm, Duty Cycle ±2.5%, Input Voltage 3.3 Volt ±5%, Operating Temperature -40°C to +85°C, Output Tristate, Frequency 125MHz.

- 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.

