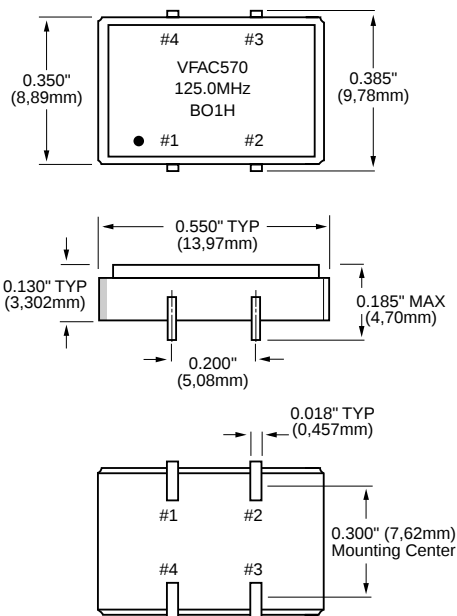


VFAC570

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.

Creating a Part Number

VFAC570 [] [] [] [] **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.)

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

INPUT VOLTAGE	
Code	Specification
L	3.3 Volt
	5.0 Volt (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.

Parameter	Symb	Condition	Min	Typ	Max	Unit	Note
Input Break Down Voltage	V _{cc}		–0.5		7.0	V	
Storage Temp.	T _s		–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
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 = 100MHz, 15pF load			50	mA	2
Load	10 TTL gates or 50pF MAX, AC coupled 50 Ohm termination recommended						
Duty Cycle		@1.4V @50%V _{cc}	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	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	fj>1KHz
Tristate Function	Input HIGH (>2.5V) or floating: ACTIVE Input LOW (<0.5V): INFINITE IMPEDANCE						
Enable/Disable Time	T _s				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. or 230°C for 90s						
Hermetic Seal	Leak rate less than 5 x 10 ^{–8} atm.cc/s of helium						
Pin Out	Pin #1–Tristate Control Pin #2–Ground, Case Pin #3–Output Pin #4–V _{cc}						

Notes:

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

All specifications are subject to change without notice.