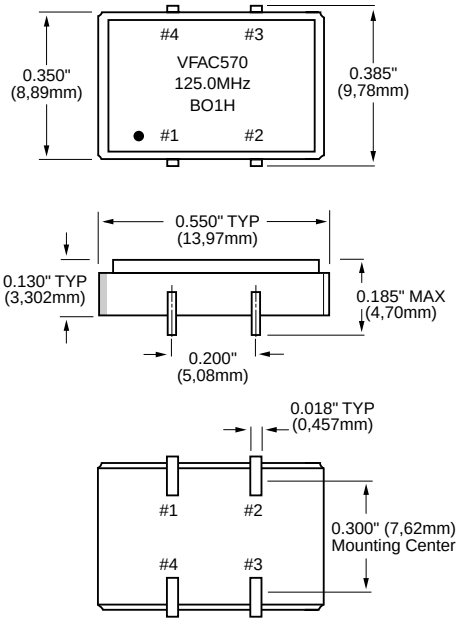
VFAC570

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

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 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
Absolute Max. Ratings	Input Break Down Voltage	Vcc		–0.5		7.0	V	
	Storage Temp.	Ts		–55		+125	°C	
Electrical	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	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, –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						
Electrical Connections	Pin Out	Pin #1–Tristate Control Pin #3–Output				Pin #2–Ground, Case Pin #4–Vcc		

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.

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