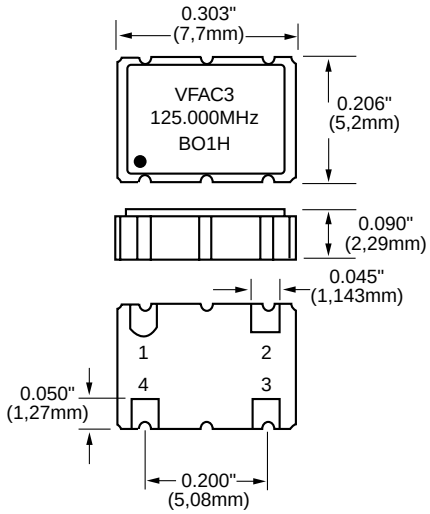
VFAC3

ACMOS/TTL Compatible
Surface Mount Clock Oscillators

FEATURES

- Very Low Phase Jitter
- Wide Frequency Range
- Miniature Ceramic Package
- EMI Shielded
- Tight Duty Cycle Available
- Wide Temperature Range Available
- Tristate Control Standard



All dimensions are typical unless otherwise specified.

Creating a Part Number

VFAC3 □□□ - □ - FREQ.

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

OPERATIONAL TEMP. RANGE	
Code	Specification
	0°C to +70°C (std.)
1	-40°C to +85°C

DUTY CYCLE	
Code	Specification
HH	±2.5%
H	±5%
	±10%

INPUT VOLTAGE	
Code	Specification
L	3.3 Volt ±5%
	5.0 Volt ±5% (std.)

Example: VFAC3H-L-125MHz: Frequency Stability ±100ppm, Duty Cycle ±5.0%, Input Voltage 3.3 Volt ±5%, Operating Temperature 0°C to +70°C, Frequency 125.000MHz.

	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		80		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			60	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					100	ns	4
Environmental and Mechanical	Operating Temperature Range	0°C to +70°C (–40°C to +85°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 90 sec						
	Hermetic Seal	Leak rate less than 5 x 10^{-8} atm.cc/s of helium						
Electrical Connections	Pin Out	Pin #1–Tristate Control Pin #2–Ground, Case	Pin #3–Output Pin #4–Vcc					

Notes:
1. Standard frequency stability (±20, ±25, ±50, others available).
2. Current is load and frequency dependent.
3. Tighter duty cycle available.
4. Some versions enable time 10ns.

All specifications are subject to change without notice.

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