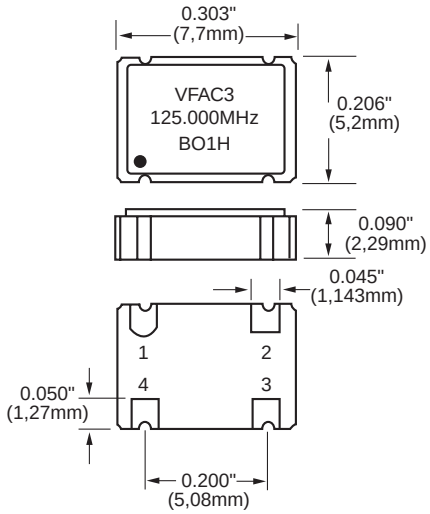
VFAC3

ACMOS/LSTTL 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		170	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			70	mA	2
	Load	10 LSTTL gates or 30pF Typ, 50pF Max.,						5
	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				15	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.
5. 50pF Max drive available, frequency an Vcc dependant

All specifications are subject to change without notice.

OIO/C05

09/02

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