

VFAC3

Surface Mount Clock Oscillator

ACMOS / LSTTL Compatible



Features

- ACMOS – TTL Compatible
- Very Low Phase Jitter
- Wide Frequency Range
- Miniature Ceramic Package
- EMI Shielded
- Tight Duty Cycle Available
- Wide Temperature Range Available
- 5.0V, 3.3V, 2.5V, and 1.8V Available
- Tristate control standard



RoHS Status

RoHS
6/6

Electrical Specifications

Parameter	Symbol	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		20 20 20		165 200 125	MHz	5V 3.3V, 2.5V, 1.8V
Frequency Stability	ΔF/F	Overall conditions including: calibration, temp., aging 10 yrs, shock, vibration	±20		±100	ppm	See "How to Order" table
Input Voltage	V _{cc}		4.75 3.15 2.38 1.71	5.00 3.30 2.50 1.80	5.25 3.45 2.63 1.89	V	See "How to Order" table
Input Current	I _{cc}	F= 100MHz 15pF load			70	mA	
Load	5 LSTTL loads or 15pF						
Duty Cycle		@1.4V @50% V _{cc}	40 40	50 50	60 60	%	5% and 2.5% options available
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				15	ms	
Phase Jitter	f _j	12KHz to 20MHz			1	ps	RMS
Tristate Function	Input HIGH (>0.8V _{cc}) or floating: Active; Input LOW (0.5V): Infinite Impedance						
Enable/ Disable Time					100	ns	



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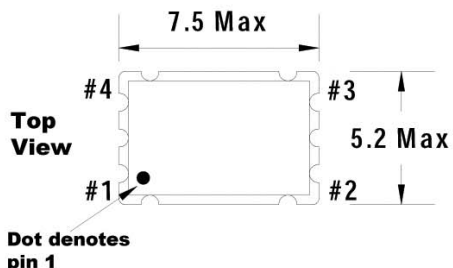
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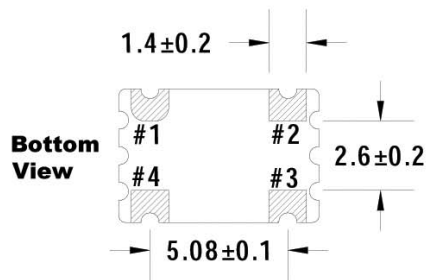
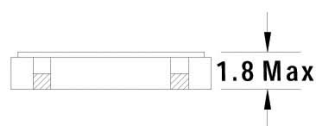


Environmental and Mechanical Conditions

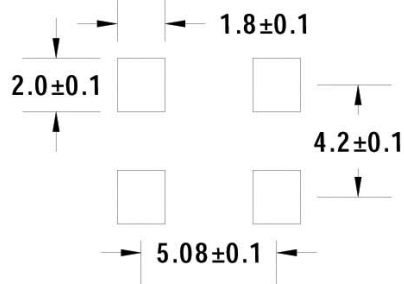
Parameter	Condition
Operating Temperature Range	0°C to +70°C or -40°C to +85°C available
Mechanical Shock	Per MIL-STD-202, Method 213, Cond. E
Thermal Shock	Per MIL-STD-883, Method 1011, Cond. A
Vibration	Per MIL-STD-883, Method 2007, Cond. A
Soldering Conditions	260°C for 10s Max., or 230°C for 90s
Hermetic Seal	Leak rate less than 5 x 10 ⁻⁸ atm.cc/s of helium



Pin #	Connection
Pin 1	Tristate Control
Pin 2	Ground
Pin 3	Output
Pin 4	Vcc



Recommended Solder Pad Layout



How to Order

VFAC3



Frequency Stability	
Code	Specification
S	±20 ppm
A	±25 ppm
B	±50 ppm
	±100 ppm

Duty Cycle	
Code	Specification
HH	±2.5%
H	±5%
	±10%

Operating Temp. Range	
Code	Specification
	0°C to 70°C
1	-40°C to +85°C

Input Voltage	
Code	Specification
J	1.8V
C	2.5V
L	3.3V
	5.0V

