

VFHS85
XO, HCMOS
12.6 x 12.6 mm SMD



Features

- 1 MHz to 70MHz
- Operating temperature -55°C to +125°C available
- 3.0V and 5.0V supply voltage
- Tight duty cycle
- Tristate option available



Applications

- Industrial
- Military

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Frequency Range	F		1		70	MHz	
Frequency Stability	$\Delta F/F$	Overall conditions including calibration , temperature, aging 10 years, shock, vibration			± 100	ppm	See "How to Order" chart
Operating Temperature Range	Ta		0°		+70°	°C	See "How to Order" chart
Supply Voltage	V _{CC}		4.75 3.15	5.00 3.30	5.25 3.45	V	See "How to Order" chart
Input Current	I _{CC}	No load			50	mA	Current is load and frequency dependent
Phase Jitter		1 σ			1.0	ps	fj >1kHz

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Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Load		15pF or 10 LSTTL gates					
Duty Cycle		@50% V_{CC}	40	50	60	%	See "How to Order" chart
Rise / Fall Time	T_r/T_f				3	ns	
Logic "1" Level	V_{OH}	Max load	0.9 V_{CC}			V	
Logic "0" Level	V_{OL}				0.1 V_{CC}		
Start up time	T_S			2	10	ms	
Enable / Disable Function		Input HIGH (>2.5V) or floating: ACTIVE Input LOW (<0.5V): INFINITE IMPEDANCE					
Enable / Disable Time	T_E / T_D				100	ns	

Absolute Maximum Ratings

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Supply Break Down Voltage	V_{CC}		-0.5		7.0	V	
Storage Temperature	T_S		-55		+125°	°C	

How to Order

VFHS85



FREQUENCY, MHz

Stability

Code	Specification
B	±50ppm
A	±25ppm
S	±20ppm
	±100ppm (std.)
C	±500ppm

Duty Cycle

Code	Specification
HH	±2.5%
H	±5%
	±10% (std.)

Supply Voltage

Code	Output
L	3.3V ±5%
	5.0V ±5% (std.)

Temperature Range

Code	Specification
	0°C to 70°C (std.)
1	-40°C to 85°C
2	-55°C to 125°C

Output

Code	Output
T	Tristate
	Non-tristate

Lead Configuration

Code	Specification
GR	Gull wing
G	Gull wing
	Through hole (std.)

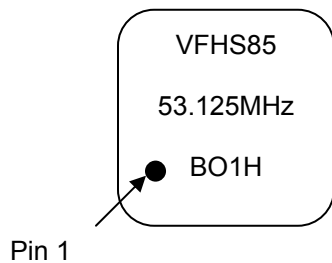


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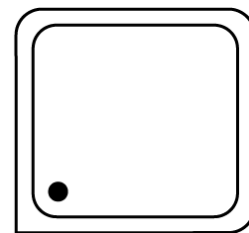
Environmental and Mechanical Conditions

Parameter	Conditions
Mechanical Shock	Per MIL-STD-202, Method 213, Condition E
Thermal Shock	Per MIL-STD-883, Method 1011, Condition A
Vibration	Per MIL-STD-883, Method 2007, Condition A
Soldering Conditions	260°C for 10s max
Hermetic Seal	Leak rate less than 5×10^{-8} atm.cc/s of helium

Marking Specifications



Mechanical Outline



Pin Assignment

Pin #	Connection
1	NC
4	GND, Case
5	Output
8	Vcc

