

VF70
XO, HCMOS/TTL
12.6 x 12.6 mm SMD



Features

- 250kHz to 100MHz
- Low phase jitter
- Operating temperature -55°C to +125°C available
- 3.0V and 5.0V supply voltage
- Tristate option available



Applications

- Industrial
- Military

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Frequency Range	F		0.25		100	MHz	
Frequency Stability	$\Delta F/F$	Overall conditions including calibration , temperature, aging 10 years, shock, vibration			± 100	ppm	See "How to Order" for other options
Operating Temperature Range	T _A		0		+70	°C	See "How to Order" for other options
Output		HCMOS/TTL					
Supply Voltage	V _{CC}		4.75 3.15	5.00 3.30	5.25 3.45	V	See "How to Order"
Input Current	I _{CC}	No load			60	mA	Current is load and frequency dependent
Phase Jitter		1 σ			1.0	ps	f _J >1kHz



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Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Load	10 TTL gates						
Duty Cycle		@1.4V	40	50	60	%	See "How to Order" for other options
Rise / Fall Time	T_R / T_F				6	ns	$f > 60\text{MHz}$
Logic "1" Level	V_{OH}	Max load	2.4			V	
Logic "0" Level	V_{OL}				0.4		
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	See "How to Order" for other options

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

VF70



FREQUENCY, MHz

Stability

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

Duty Cycle

Code	Specification
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.)



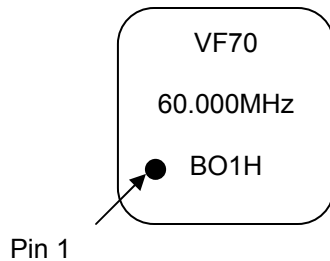
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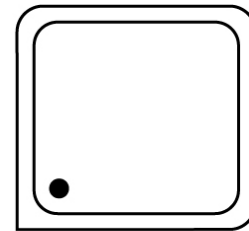
Environmental and Mechanical Conditions

Parameter	Condition
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 Assignments

Pin #	Connection
1	NC
4	GND, Case
5	Output
8	V _{CC}

