

**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			$\pm 100$	ppm	See "How to Order" for other options
Operating Temperature Range	Ta		0°		+70°	°C	See "How to Order" for other options
Output		HCMOS/TTL					
Supply Voltage	V <sub>CC</sub>		4.75 3.15	5.00 3.30	5.25 3.45	V	See "How to Order"
Input Current	I <sub>CC</sub>	No load			60	mA	Current is load and frequency dependent
Phase Jitter		1 $\sigma$			1.0	ps	fj >1kHz

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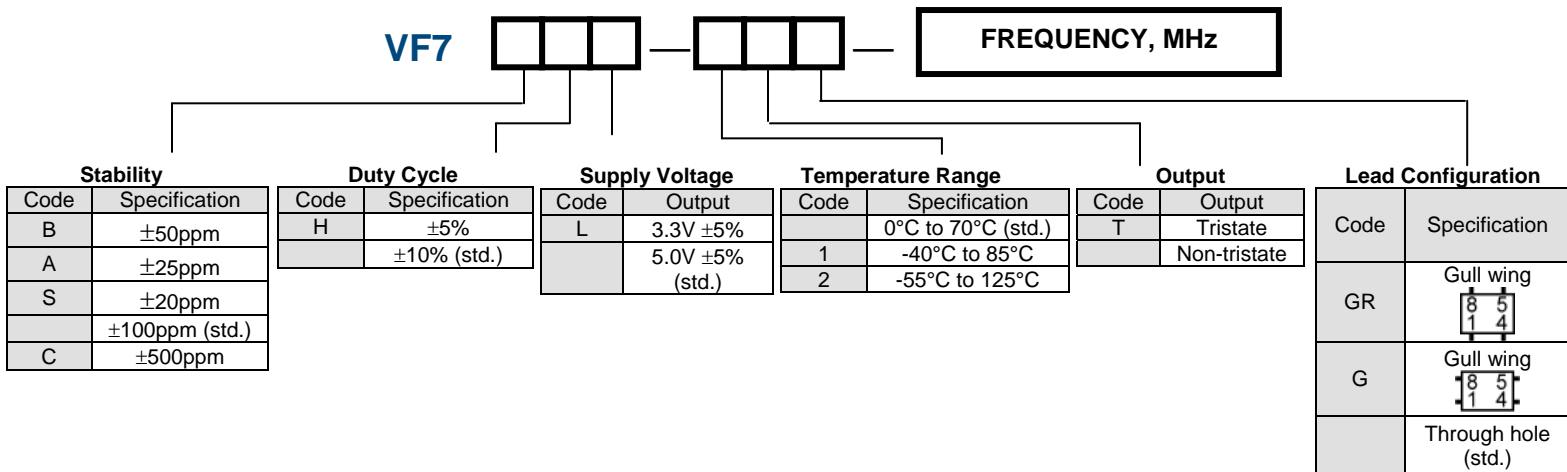
**Electrical Specifications**

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**

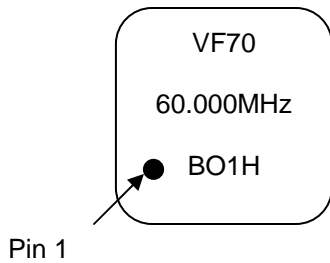


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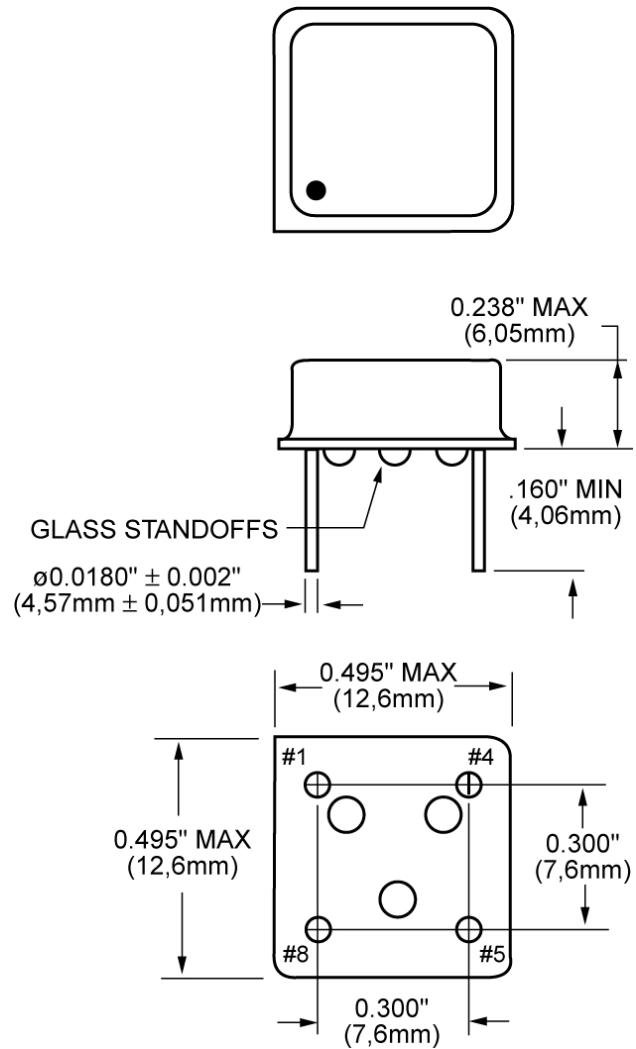
**Environmental and Mechanical**

Parameter	Specification
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 $5 \times 10^{-8}$ atm.cc/s of helium

**Marking Specifications**



**Mechanical Outline**



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