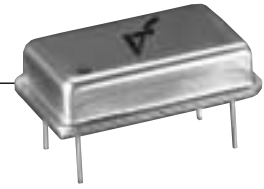


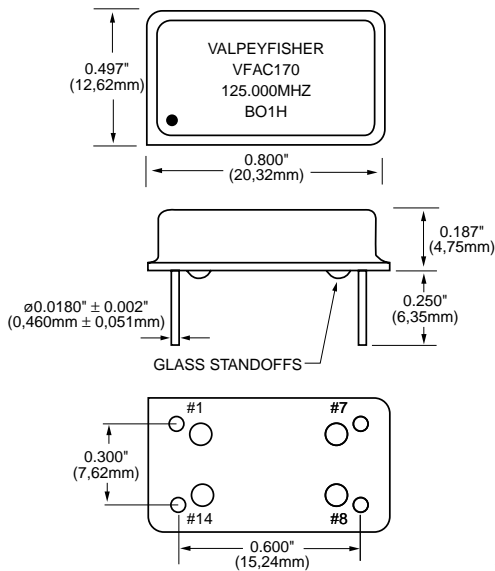
## VFAC170



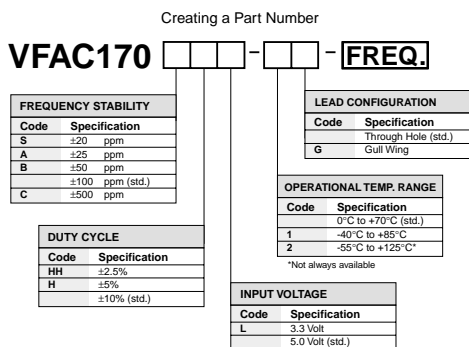
## ACMOS/TTL Compatible Crystal Clock Oscillator

## FEATURES

- Very Low Phase Jitter
- Low Cost
- Industrial Temperature Range
- Wide Frequency Range
- Tristate Output Standard



All dimensions are typical unless otherwise specified.



Example: VFAC170SHH-1-125MHz: Frequency Stability ±20ppm, Duty Cycle ±2.5%, Input Voltage 5.0 Volt ±5%, Operating Temperature -40°C to +85°C, Output Tristate, Lead Configuration Straight, Frequency 125.000MHz.

	Parameter	Symb	Condition	Min	Typ	Max	Unit	Note
Absolute Max. Ratings	Input Break Down Voltage	V <sub>cc</sub>		-0.5		7.0	V	
	Storage Temp.	T <sub>s</sub>		-55		+125	°C	
Electrical	Frequency	F		4.00		200	MHz	
	Frequency Stability	ΔF/F	Overall conditions including: calibration, temp., aging 10 yrs, shock, vibration			±100	ppm	1
	Input Voltage	V <sub>cc</sub>		4.75 3.15	5.00 3.30	5.25 3.45	V	Std. LV Opt.
	Input Current	I <sub>cc</sub>	F = 100MHz, 15pF load, V <sub>cc</sub> = 5V			50	mA	2
	Load	10 TTL gates or 50pF MAX, AC coupled 50 Ohm termination recommended						
	Duty Cycle		@1.4V	40	50	60	%	3
	Rise/Fall Time	Tr/Tf	50 Ohm/15pF		1	3	ns	
	Logic "1" Level	V <sub>oh</sub>	MAX Load	0.9V <sub>cc</sub>				
	Logic "0" Level	V <sub>ol</sub>	MAX Load			0.1V <sub>cc</sub>		
	Start-up Time	T <sub>s</sub>			2	10	ms	
	Phase Jitter		1σ			1	ps	f <sub>j</sub> > 1KHz
	Tristate Function	Input HIGH (>2.5V) or floating: ACTIVE Input LOW (<0.5V): INFINITE IMPEDANCE						
Enable/Disable Time	T <sub>e</sub> /T <sub>d</sub>				100	ns		
Environmental and Mechanical	Operating Temperature Range	0°C to +70°C (-40°C to +85°C, -55°C to +125°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.						
	Hermetic Seal	Leak rate less than 5 x 10 <sup>-8</sup> atm.cc/s of helium						
Electrical Connections	Pin Out	Pin #1-Tristate Control Pin #8-Output		Pin #7-Ground, Case Pin #14-Vcc				

## Notes:

1. Standard frequency stability (±20, ±25, ±50, others available).
2. Current is load and frequency dependent.
3. ±5%, and ±2.5% symmetry available.

All specifications are subject to change without notice.