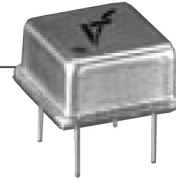
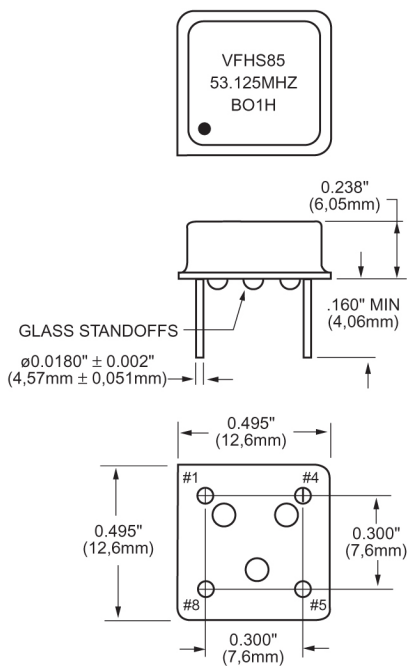


VFHS85

HCMOS Half Size DIP
Clock Oscillators

FEATURES

- Tristate Available
- Extended Temperature Ranges
- Tight Symmetry Available
- Common Footprint



All dimensions are typical unless otherwise specified.

Creating a Part Number

VFHS85 [] [] - [] [] - **FREQ.**

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

DUTY CYCLE	
Code	Specification
HH	$\pm 2.5\%$
H	$\pm 5\%$
	$\pm 10\%$ (std.)

INPUT VOLTAGE	
Code	Specification
L	3.3 Volt $\pm 5\%$
	5.0 Volt $\pm 5\%$ (std.)

LEAD CONFIGURATION	
Code	Specification
GR	Gull Wing
G	Gull Wing
	Through Hole (std.)

OUTPUT	
Code	Specification
T	Tristate
	non-tristate (std.)

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

Example: VFHS85BHL-1GR-53.125MHz: Frequency Stability ± 20 ppm, Duty Cycle $\pm 5.0\%$, Input Voltage 3.3 Volt $\pm 5\%$, Operational Temperature -40°C to +85°C, Gull Wing, Frequency 53.125MHz.

	Parameter	Symb	Condition	Max. Ratings			Unit	Note
				Min	Typ	Max		
Absolute	Input Break Down Voltage	V _{cc}		-0.5		7.0	V	
	Storage Temp.	T _s		-55		+125	°C	
	Frequency Range	F		1.0		70	MHz	
	Frequency Stability	$\Delta F/F$	Overall conditions including: calibration, temp., aging 10 yrs, shock, vibration			± 100	ppm	1
Electrical	Input Voltage	V _{cc}		4.75 3.15	5.00 3.30	5.25 3.45	V	Std. LV Opt.
	Input Current	I _{cc}	No load			50	mA	2
	Load	15pF or 10 LSTTL gates						
	Duty Cycle		@50% V _{cc}	40	50	60	%	3
	Rise/Fall Time	T _r /T _f				3	ns	
	Logic "1" Level	V _{oh}	Max Load	0.9V _{cc}			V	
	Logic "0" Level	V _{ol}	Max Load			0.1V _{cc}		
	Start-up Time	T _s			2	10	ms	
	Phase Jitter		1 σ			1	ps	f _j > 1KHz
	Tristate Function	Input HIGH (>2.5V) or floating: ACTIVE Input LOW (<0.5V): INFINITE IMPEDANCE						4
Environmental and Mechanical	Enable/Disable Time	T _e /T _d				100	ns	
	Operating Temperature Range	0°C to +70°C (-40°C to +85°C, and -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.						
Electrical Connections	Hermetic Seal	Leak rate less than 5 x 10 ⁻⁸ atm.cc/s of helium						
	Pin Out	Pin #1-N/C or tristate Pin #4-Ground, Case Pin #5-Output Pin #8-Vcc						

Notes:

1. ± 50 ppm, ± 25 ppm stability available.
2. Current is load and frequency dependent.
3. $\pm 5\%$, and $\pm 2.5\%$ duty cycle available.
4. Tristate available.

All specifications are subject to change without notice.