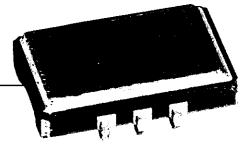


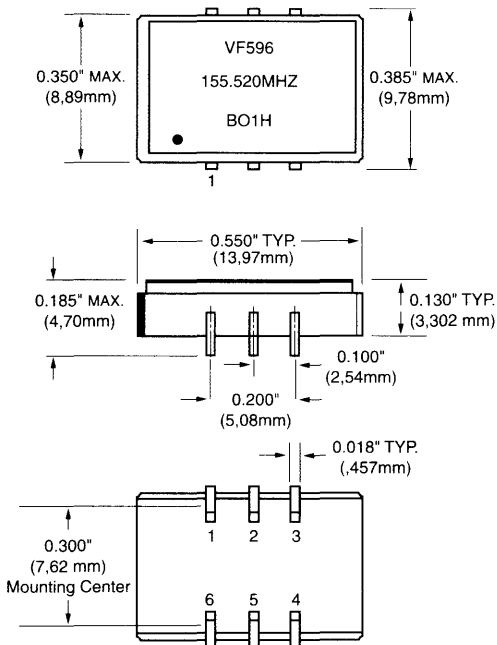
VF596



PECL 10KH Compatible Surface Mount VCXO

FEATURES

- Wide and High Frequency Range
- Wide Pull Range Available
- No Frequency Multiplication is Used: Very Low Phase Jitter
- Complementary Output Standard



All dimensions are typical unless otherwise specified.

Creating a Part Number

VF596 [] - [] - [] - **FREQ.**

FREQUENCY STABILITY	
Code	Specification
S	±20 ppm
L	±25 ppm (std.)

ABSOLUTE PULL RANGE (ppm)	
Code	Specification
	±50 ppm MIN. (std.)
XXX	Specify Deviation MIN. (up to +500 ppm MAX.)

INPUT VOLTAGE	
Code	Specification
L	3.3 Volt ±5%
	5.0 Volt ±5% (std.)

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

Example: VF596L-1-150-125MHz: Frequency Stability ±25ppm, Duty Cycle ±5.0%, Input Voltage 3.3 Volt ±5%, Operational Temperature -45°C to +85°C, Complementary Output, APR ±150ppm, Frequency 125.000MHz.

	Parameter	Symb	Condition	Min	Typ	Max	Unit	Note					
Absolute Max. Ratings	Input Break Down Voltage	Vcc		-0.5		7.0	V						
	Storage Temp.	Ts		-40		+85	°C						
	Control Voltage	Vc		-1		9	V						
Electrical	Frequency Range	F		19.44		200	MHz						
	Frequency Stability	ΔF/F	vs., Temp., Vcc			±25	ppm						
	Input Voltage	Vcc		4.75 3.15	5.00 3.30	5.25 3.45	V	Std. LV Opt.					
	Input Current	Icc	50 Ohm Load			65	mA						
	Load	50 Ohm to Vcc-2V or Thevenin Equiv. Bias Required											
	Duty Cycle		@50%	45	50	55	%						
	Rise/Fall Time	Tr/Tf	20% to 80%			1.50	ns						
	Logic "1" Level	Voh	@Vcc = 5.0V	4.04		4.19	V						
	Logic "0" Level	Vol	@Vcc = 5.0V	3.15		3.25	V						
	Start-up Time	Ts			2	10	ms						
	Phase Jitter		1σ			1	ps	fj>1KHz					
	Modulation BW		@Vc = 2.5V	10			KHz	@-3db					
	Input Impedance		fm<10KHz	50			KOhm						
	Control Voltage	Vc	Vcc = 5.0V Vcc = 3.3V	0 0		5.00 3.30	V	1					
	Deviation		Vc = 0V to 5V, 25°C			±100	ppm						
	Absolute Usable Pull Range	APR	Overall	±50			ppm						
	Deviation Slope		Monotonic, positive			50	ppm/V	2					
Linearity					±20	%	3						
Setability (Vc for center freq)	Vc0	@25°C, Fnominal	2.00 1.20	2.50 1.65	3.00 2.10	V	Std. LV Opt.						
Environmental and Mechanical	Operating Temperature Range	0°C to +70°C (-40°C to +85°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., or 230°C for 90s Max.											
Electrical Connections	Hermetic Seal	Leak rate less than 5 x 10 ⁻⁸ atm.cc/s of helium											
	Pin Out	Pin #1-Voltage Control		Pin #2-N/C		Pin #3-Ground, Case			Pin #4-Output		Pin #5-Complementary Output		Pin #6-Vcc

Notes:

1. 0V to 5V control voltage available for Vcc 3.3V. Nominal Control Voltage is 2.5V and Setability is ±0.5V in this case.
2. Negative slope and supply voltage available in true ECL applications.
3. Tighter linearity specification available.

All specifications are subject to change without notice.