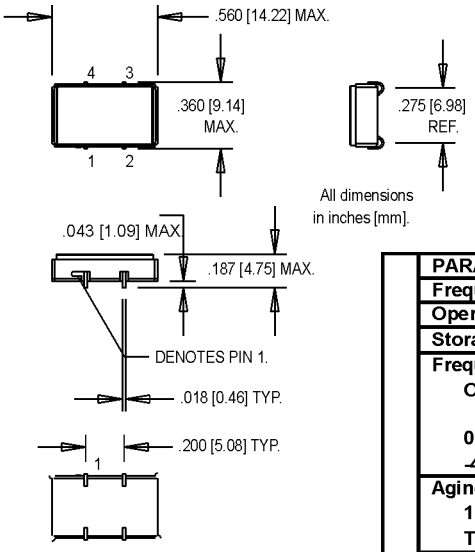
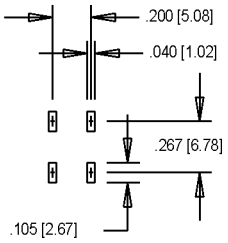
K1526D Series
9x14 mm, 5.0 Volt, CMOS/TTL, VCXO

- Former Champion Technologies, Inc. Product
- Phase-Locked Loops (PLL's), Clock Recovery, Reference Signal Tracking, Synthesizers, Frequency Modulation/Demodulation



SUGGESTED SOLDER PAD LAYOUT



Ordering Information

K1526D X X -R 00.0000 MHz

- Product Series
- Model Selection
  - A: ±100 - ±150 ppm Pull*
  - D: ±80 - ±130 ppm Pull*
- Temperature Range
  - Blank: 0°C to +70°C
  - M: -40°C to +85°C
- RoHS Compliance
  - Blank: non-RoHS compliant part
  - -R: RoHS compliant part
- Frequency (customer specified)

* Above 40 MHz, pull is ±100 ppm or ±80 ppm minimum (no maximum)

Pin Connections

PIN	FUNCTION
1	Voltage Control
2	Ground & Gnd Plane
3	Output
4	+Vdd

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Electrical Specifications	Frequency Range	F	2		160	MHz	
	Operating Temperature	T_A	(See ordering information)				
	Storage Temperature	T_S	-40		+125	°C	
	Frequency Stability	ΔF/F					
	Overall		Inclusive of Calibration, Temperature, Voltage, Load, and Aging				
	0°C to +70°C				±25	ppm	
	-40°C to +85°C				±50	ppm	
	Aging						
	1st Year		-3/-5		+3/+5	ppm	< 52 MHz / ≥ 52 MHz
	Thereafter (per year)		-1/-2		+1/+2	ppm	< 52 MHz / ≥ 52 MHz
	Pullability/APR		(See ordering information)				
	Control Voltage	Vc	0.5	2.5	4.5	V	
	Linearity						Positive Monotonic Slope
	2.000 to 33.000 MHz				5	%	
	33.001 to 160.000 MHz				10	%	
	Modulation Bandwidth	fm	20			KHz	±3dB
	Input Impedance	Zin	50k			Ohms	@ 10 kHz
	Input Voltage	Vdd	4.5	5.0	5.5	V	
	Input Current	Idd			26	mA	
	Output Type						HCMOS/TTL
	Load		5 TTL or 15 pF HCMOS				See Note 1
	Symmetry (Duty Cycle)						See Note 2
	TTL & CMOS < 33 MHz		45		55	%	
	CMOS ≥ 33 MHz		40		60	%	
	Logic "1" Level	Voh	4.5			V	
	Logic "0" Level	Vol			0.5	V	
	Output Current				±16	mA	
	Rise/Fall Time	Tr/Tf			4	ns	
	Start up Time				10	ms	
	Phase Jitter @ 26 MHz	ϕJ		4		ps RMS	Integrated 12 kHz – 20 MHz
	Phase Noise (Typical)	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	Offset from carrier
	@ 26 MHz	-65	-95	-115	-130	-140	dBc/Hz
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 mS duration, ½ sinewave)					
	Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
	Hermeticity	Per MIL-STD-202, Method 112, (1x10-8 atm. cc/s of Helium)					
	Thermal Cycle	Per MIL-STD-883, Method 1010, Condition B (-55°C to +125°C, 15 min. dwell, 10 cycles)					
	Solderability	Per EIAJ-STD-002					
	Soldering Conditions	+240°C max. for 10 secs.					

1. TTL load – see load circuit diagram #1. HCMOS load – see load circuit diagram #2.
2. Symmetry is measured at 1.4 V with TTL load, and at 50% Vdd with HCMOS load.