

K1526C & K1536C Series

9x11 mm, 5.0 or 3.3 Volt, CMOS/TTL, VCXO



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

Ordering Information

00.0000 MHz

K15X6CX X X

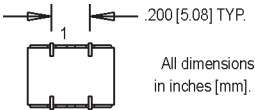
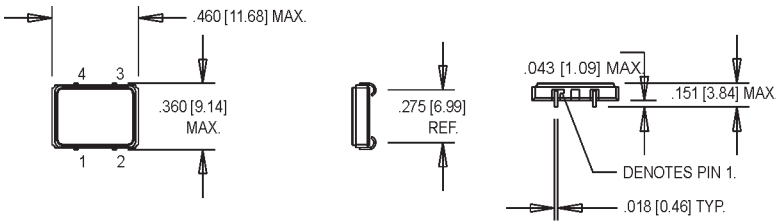
Product Series
 K1526C = 5.0 Volt
 K1536C = 3.3 Volt

Model Selection:
 See Electrical Specs

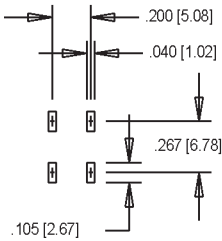
Temperature Range
 Blank: 0°C to +70°C
 M: -40°C to +85°C

Symmetry/Logic Compatibility
 Blank: TTL/CMOS 40%/60%
 C: CMOS 45%/55%
 T: TTL 45%/55%

Frequency (customer specified)



SUGGESTED SOLDER PAD LAYOUT



Pin Connections

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

PARAMETER	Symbol					Units	Condition
Model		K1526CA K1536CA		K1526CD K1536CD	K1526CE		
Frequency Range	F	2 to 55	55.1 to 80	2 to 55	2 to 33	MHz	
Frequency Stability:	$\Delta F/F$						
Overall		Inclusive of Calibration, Temperature, Voltage, Load, and Aging					
0°C to +70°C		±25	±40	±25	±32	ppm	
-40°C to +85°C		±50	±60	±50	±50	ppm	
Pullability							
Minimum		±100	±80	±80	±200	ppm	
Maximum		±150	±160	±130		ppm	
Linearity		<10				%	
Modulation Bandwidth (±3dB)	fm	>20				KHz	
Nominal Control Voltage		2.5 1.65				V	K1526C K1536C
Control Voltage	Vc				0 to 5	V	
		0.5 to 4.5 0.3 to 3.0				V	K1526C K1536C
Transfer Function		Positive					
Input Impedance		>50KΩ @ 10 kHz					
Operating Temperature	Ta	-40 to +85				°C	
Storage Temperature	Ts	-40 to +125				°C	
Input Voltage	Vdd	+5.0 ±10% +3.3 ±10%				V	K1526C K1536C
Input Current	Idd	<30				mA	
Symmetry (Duty Cycle)		40/60				%	
Start up Time		<10				ms	
Phase Noise (Typical)		10 Hz -65	100 Hz -95	1 kHz -115	10 kHz -130	100 kHz -140	dBc/Hz
Temperature Cycle		MIL-STD-883, Method 1010, Condition B			-55°C to +125°C; Air-to-Air; 100 cycles; 10 min. dwell		
Mechanical Shock		MIL-STD-883, Method 2002, Condition B			1500 g's		
Vibration		MIL-STD-883, Method 2007, Condition B			20-2000 Hz; 0.06 inch; 15 g's; 3 planes		
Humidity Steady State		MIL-STD-202, Method 103			40°C; 90%-95% R.H.; 56 days		
Thermal Shock		MIL-STD-883, Method 1011.7, Condition B			100°C to 0°C; Water-to-Water; 15 cycles		
Electrostatic Discharge		MIL-STD-883, Method 3015, Class II			2 KV to 4 KV Threshold		
Solderability		MIL-STD-883, Method 2022.2			Solder dip; Meniscograph Criteria		
Hermeticity		MIL-STD-883, Method 1014.8, Condition A1			Mass spectro. 2 x 10-8 atoms. CC/sec He		
Resistance to Soldering		See "Figure 2" on page 147					
Lead Integrity		MIL-STD-883, Method 2004.5, Cond. A,B1			Lead tension & bend stress		
Marking Permanence		MIL-STD-883, Method 2015.8			Resistance to solvents		
Life Test		MIL-STD-883, Method 1005.6			125°C, powered, 1000 hours minimum		

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