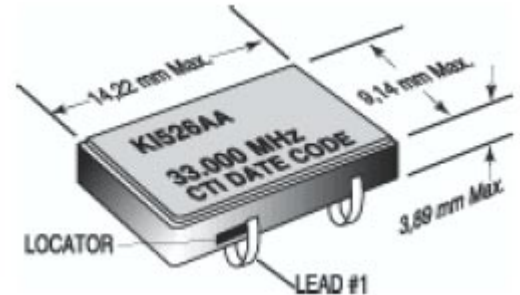


K1526A Series

5V 9x14mm Surface Mount Voltage Controlled Crystal Oscillator



- **Applications:** Phase-Locked Loops (PLL's), Clock Recovery, Reference Signal Tracking, Synthesizers, Frequency Modulation/Demodulation
- Ceramic Construction, Medal Lid
- 2.0 to 40 MHz Frequency Range
- 0.5V to 4.5 V Control Voltage
- ± 25 ppm Stability
- -40°C to $+85^{\circ}\text{C}$ Operating Temperature Option
- Tape and Reel Available
- Ground Shielded Top and Bottom
- 4-pin SOJ-20 Footprint
- J-Leads Seam-sealed, Resistance Welded Hermetic Package



Not Recommended for New Designs. Refer to K1570A & K1570AQH Series as an Alternative.

ELECTRICAL SPECIFICATIONS

Model	K1526AA		K1526AD	
Frequency Range (MHz)	2 to 33	33.1 to 40	2 to 33	33.1 to 40
Frequency Stability (ppm)	Inclusive of Calibration, Temperature, Voltage, Load, and Aging			
Overall				
0°C to +70°C	± 25		± 40	
-40°C to +85°C	± 50		± 60	
Frequency Control Function	(For Custom Deviation Range, Vc Range, transfer function, etc. – Consult Factory)			
Deviation (Typical)				
Minimum	± 100		± 80	
Maximum	± 150		± 40	
Linearity	<5%	<10%	<5%	
Modulation Bandwidth ($\pm 3\text{dB}$)	>20KHz			
Nominal Control Voltage (V)	2.5			
Control Voltage Range (V)	0.5 to 4.5			
Transfer Function	Positive			
Input Impedance	> 50K Ω @ 10KHz			
Temperature Range ($^{\circ}\text{C}$)				
Operating	-40°C to $+85^{\circ}\text{C}$			
Storage	-40°C to $+125^{\circ}\text{C}$			
Supply Voltage (V)	$+5.0\text{V} \pm 10\%$			
Input Current (mA)	<26			
Start Up Time (ms)	<10			
Symmetry (%) TTL	45/55			
Symmetry (%) CMOS	<33 MHz 45/55, ≥ 33 MHz 40/60			
Typical SSB Phase Noise (dBC/Hz)	10Hz			-65
Offset from Carrier	100Hz			-95
	1KHz			-120
	10KHz			-140
	100KHz			-150

PART NUMBERING GUIDE

K1526AXX	-Specific Frequency
	“Blank” = 0°C to $+70^{\circ}\text{C}$ Operating Temp.
	“M” = 40°C to $+85^{\circ}\text{C}$ Operating Temp
	Model Selection: See Table Above

PART NUMBERING GUIDE ROHS COMPLIANT PART

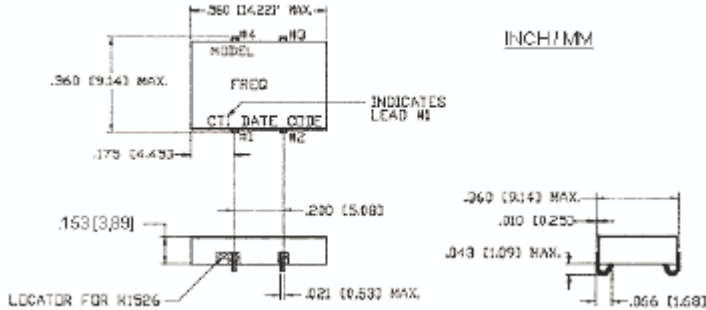
K1526AXX-R	-Specific Frequency
	“Blank” = 0°C to $+70^{\circ}\text{C}$ Operating Temp.
	“M” = 40°C to $+85^{\circ}\text{C}$ Operating Temp
	Model Selection: See Table Above

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K1526A Series

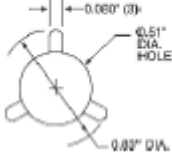
5V 9x14mm Surface Mount Voltage Controlled Crystal Oscillator



TAPE & REEL SPECIFICATIONS

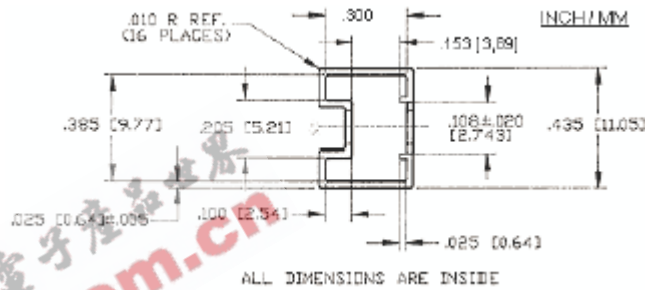
Tape & Reel Shipping Tape
 Size: 24mm
 Material: Black PVC, Conductive .012" thick

13" Reel
 Tape Length: 16.5 yds
 Max. No. of Pockets: 750
 Leader Length: 16" min.
 Trailer Length: 14" min.
 Q.C. Sample Quantity: 10 pcs.
 Product/Reel: 500
 Cover Tape Thickness: .002"
 Cover Peel Strength: 75g
 Note: Minimum Order is 500

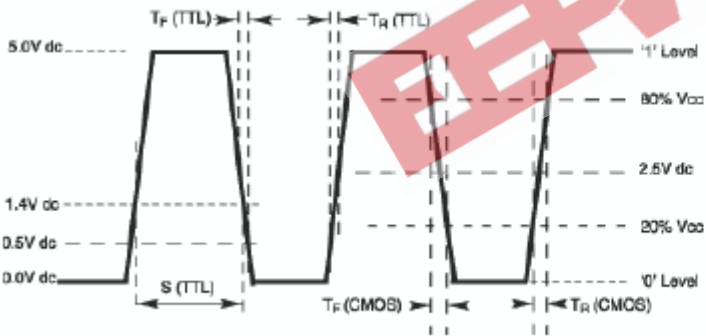


PIN	FUNCTION
1	Voltage Control
2	Gnd & Ground Plane
3	Output
4	+V _{CC}

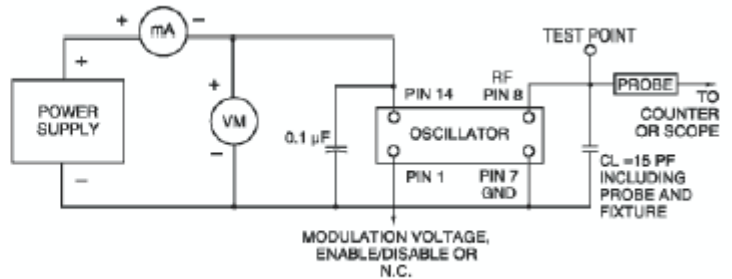
SHIPPING TUBE CROSS SECTION



OUTPUT WAVEFORM



TEST CIRCUIT DIAGRAM



MECHANICAL AND ENVIRONMENTAL SPECIFICATIONS		
TEST METHODS	REFERENCE PROCEDURES	DESCRIPTION
Temperature Cycle	MIL-STD-833, Mtd 1010, Cond. B	-55°C to +125°C; Air-to-Air, 100 cycles; 10 min. dwell
Mechanical Shock	MIL-STD-883, Mtd 2002, Cond. B	1500 g's
Vibration	MIL-STD-883, Mtd 2007, Cond. B	20-2000 Hz; 0.06 inch; 15g's; 3 planes
Humidity Steady State	MIL-STD-202, Mtd 103	40°C; 90%-95% R.H.; 56 days
Thermal Shock	MIL-STD-883, Mtd 1011.7, Cond. B	100°C to 0°C; Water-to-Water; 15 cycles
Electrostatic Discharge	MIL-STD-883, Mtd 3015 Class II	2 KV to 4 KV Threshold
Solderability	MIL-STD-883, Mtd 2022.2	Solder dip; Meniscograph Criteria
Hermeticity	MIL-STD-883, Mtd 1014.8, Cond. A1	Mass spectro. 2 x 10-8 atmos. CC/sec He
Resistance to Soldering	MIL-STD-202, Mtd 210D, Cond. C	260°C; 10 seconds: 1 inch/sec.
Lead Integrity	MIL-STD-883, Mtd 2004.5, Cond. A, B1	Lead tension & bend stress
Marking Permanence	MIL-STD-883, Mtd 2015.8	Resistance to solvents
Life Test	MIL-STD-883, Mtd 1005.6	125°C, powered, 1000 hours minimum

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