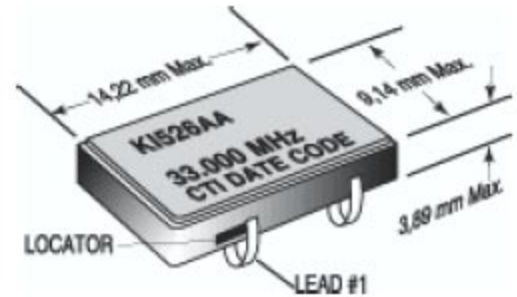


K1526A Series

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

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				
-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 (±3dB)	>20KHz			
Nominal Control Voltage (V)	2.5			
Control Voltage Range (V)	0.5 to 4.5			
Transfer Function	Positive			
Input Impedance	> 50KΩ @ 10KHz			
Temperature Range (°C)				
Operating	-40°C to +85°C			
Storage	-40°C to +125°C			
Supply Voltage (V)	+5.0V ±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°C Operating Temp.
└─ "M" = 40°C to +85°C Operating Temp
└─ Model Selection: See Table Above

PART NUMBERING GUIDE ROHS COMPLIANT PART

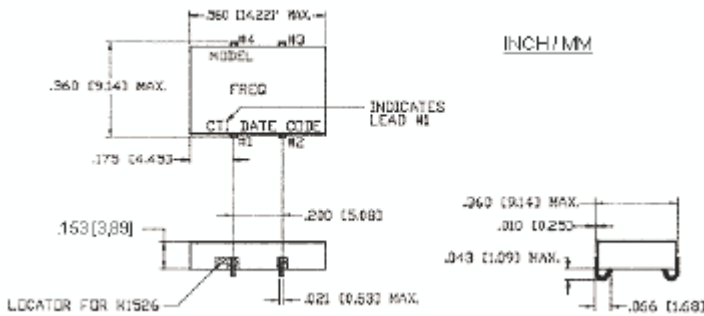
K1526AXX-R
└─ Specific Frequency
└─ "Blank" = 0°C to +70°C Operating Temp.
└─ "M" = 40°C to +85°C Operating Temp
└─ Model Selection: See Table Above

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Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.

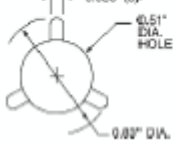
K1526A Series

5V 9x14mm Surface Mount Voltage Controlled Crystal Oscillator



TAPE & REEL SPECIFICATIONS

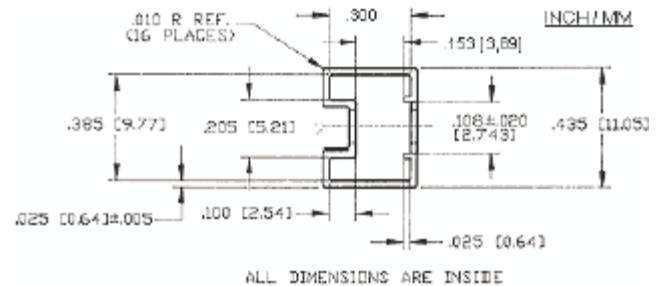
Tape & Reel
Shipping Tape
Size: 24mm
Material: Black PVC,
Conductive .012" thick
Shipping Reel
Size: 13" diameter
Material: Plastic



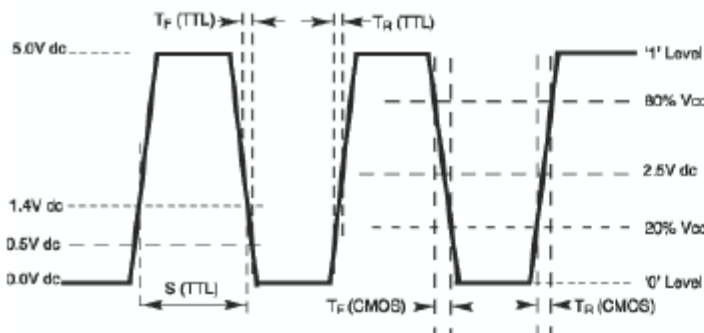
13" Reel
Tape Length 16.5 yds
Max. No. of Pockets: 750
Leader Length: 16" min.
Trailer Length: 14" min.
Q.C. Sample Quantity: 10 pcs.
Product/Reel: 500
Cover Tape Thickness: .002"
Cover Peel Strength: 75g
Note: Minimum Order is 500

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

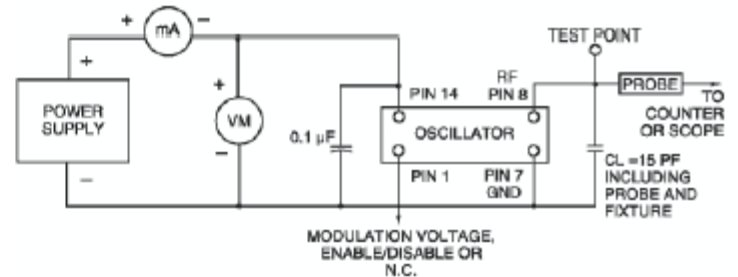
SHIPPING TUBE CROSS SECTION



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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