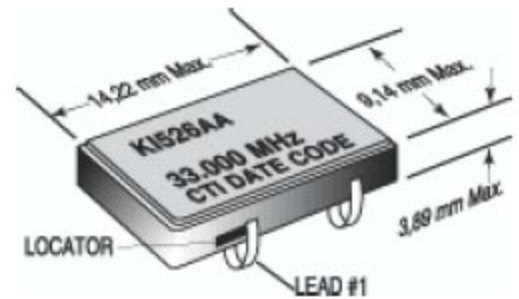


K1526A Series

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



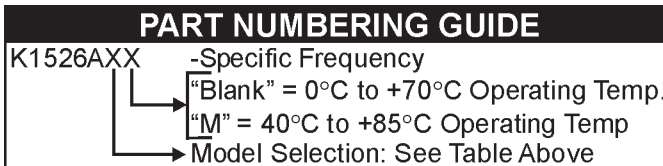
Not Recommended for New Designs. Refer to K1570A & K1570AQH Series as an Alternative.

ELECTRICAL SPECIFICATIONS

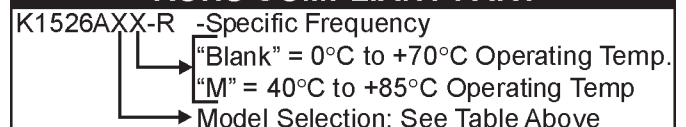
| Model | K1526AA | | K1526AD | |
|---|---|---------|------------|---------|
| | Frequency Range (MHz) | 2 to 33 | 33.1 to 40 | 2 to 33 |
| Frequency Stability (ppm) | Inclusive of Calibration, Temperature, Voltage Load, and Aging | | | |
| Overall | | | | |
| 0°C to +70°C | ± 25 | | ± 40 | |
| -40°C 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 | |

OBSOLETE

PART NUMBERING GUIDE



PART NUMBERING GUIDE ROHS COMPLIANT PART

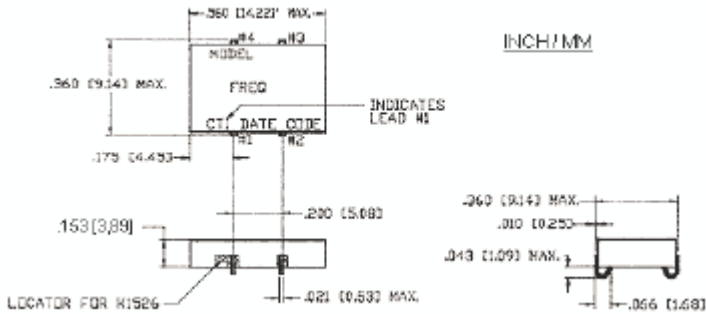


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K1526A Series

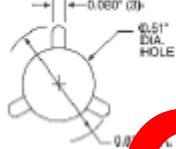
5V 9x14mm Surface Mount Voltage Controlled Crystal Oscillator



TAPE & REEL SPECIFICATIONS

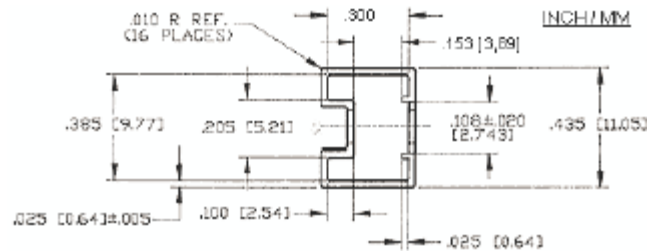
Tape & Reel
Shipping Tape
 Size: 24mm
 Material: Black PVC,
 Conductive .012" thick
Shipping Reel
 Size: 13" diameter
 Material: Plastic

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

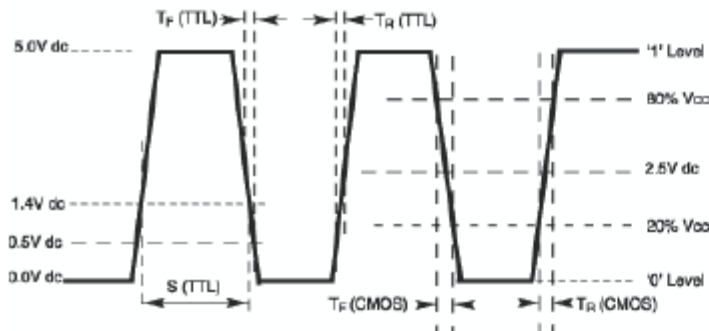


| PIN | FUNCTION |
|-----|--------------------|
| 1 | Voltage Control |
| 2 | Gnd & Ground Plane |
| 3 | Output |
| 4 | +V _{CC} |

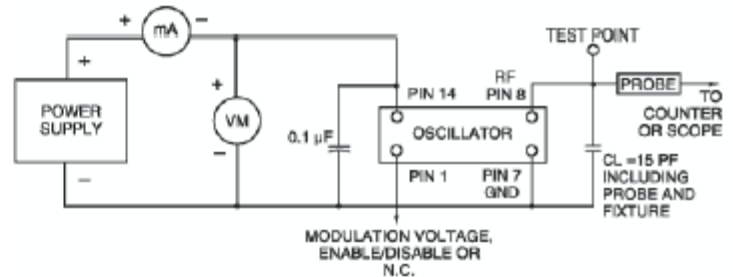
SHIPPING TUBE CROSS SECTION



OUTPUT WAVEFORM



TEST CIRCUIT DIAGRAM



OBSOLETE

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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