

TTL / CMOS • HALF-SIZE DIP • 5Vdc or 3.3Vdc

# VOLTAGE-CONTROLLED CRYSTAL OSCILLATORS

## AHVX1025 and AHVX1025L



12.7 x 12.7 x 5.6 mm

### FEATURES:

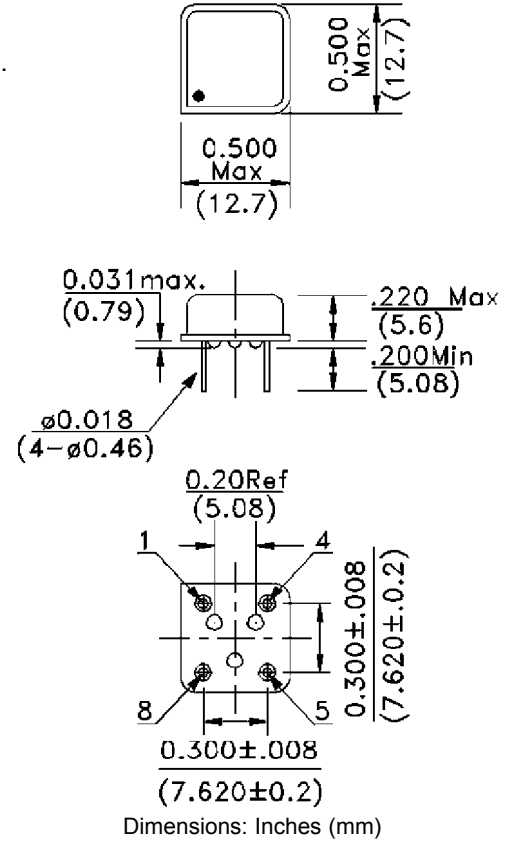
- 8-Pin DIP metal package.
- Tight stability and wide pull range.
- Tight symmetry.
- 5Vdc or 3.3Vdc.

### APPLICATIONS:

- Phase locked loops (PLLs)
- Clock recovery.
- Set-top box.
- Reference signal tracking.
- Synthesizers.
- Digital transmission.

## STANDARD SPECIFICATIONS

PARAMETERS	AHVX 1025	AHVX 1025L
Frequency Range (F <sub>0</sub> )	1.0MHz - 200MHz	
Operating Temperature (T <sub>OPR</sub> )	0°C to +70°C (See Options)	
Storage Temperature (T <sub>STO</sub> )	-55°C to +125°C	
Frequency Stability (ΔF/ F <sub>0</sub> )	±50ppm max	
Supply Voltage (V <sub>dd</sub> )	5Vdc ±5%	3.3Vdc ±5%
Input Current (I <sub>dd</sub> )	20mA max. for F ≤ 30MHz 35mA max. for F ≤ 65MHz 45mA max. for F ≤ 125MHz 70mA max. for F ≤ 200MHz	
Duty Cycle or Symmetry	45/55% max. @ 1/2V <sub>dd</sub>	
Rise and Fall Times (T <sub>R</sub> / T <sub>F</sub> )	6ns max.	
Output Load	15pF or 2TTL	
Output Voltage (V <sub>OH</sub> ) (V <sub>OL</sub> )	0.9 *V <sub>dd</sub> min. 0.4Vdc max.	
Transfer Function	Positive	
Voltage Control (V <sub>c</sub> )	2.5Vdc ±2.0Vdc	1.65Vdc ±1.35V
Frequency Deviation	±100ppm min. (See Options)	
Linearity	±10% max.	
Input impedance	50K Ω min.	
Period jitter: Absolute	±100ps max. ≤ 60MHz ; ±200ps max. >60MHz	
Period jitter: One sigma	±25ps max. ≤ 60MHz ; ±50ps max. >60MHz	



PIN NO.	FUNCTION
1	Voltage Control V <sub>c</sub>
4	GND / Case
5	Output
8	V <sub>dd</sub>

Test circuit, waveforms, see appendix B.

Environmental and mechanical specifications, see appendix C. Group 1.

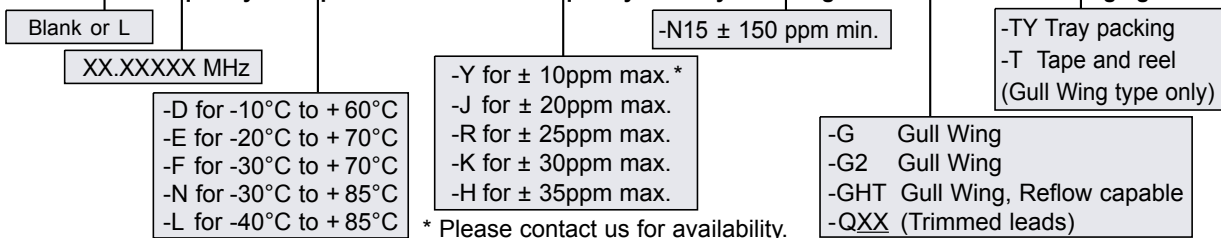
Marking, see appendix G. Value added, see appendix D.

Application notes, see appendix A. Reflow profile, see appendix E.

Packaging, see appendix H. Recommended handling, see appendix F.

## ORDERING OPTIONS

AHVX1025X - Frequency - Temperature - Overall Frequency Stability - Pulling - Value Added - Packaging



NOTE: Left blank if standard • All specifications and markings subject to change without notice

ABRACON IS  
ISO 9001 / QS 9000  
CERTIFIED

29 Journey • Aliso Viejo, CA 92656 • USA  
(949) 448-7070 • FAX: (949) 448-8484

E-MAIL: [abinfo@abracon.com](mailto:abinfo@abracon.com) • INTERNET ADDRESS: [www.abracon.com](http://www.abracon.com)

