

7.0 x 5.0 x 1.7 mm

# MINIATURE CERAMIC • HCMOS • SURFACE MOUNT • 5Vdc or 3.3Vdc VOLTAGE-CONTROLLED CRYSTAL OSCILLATORS ASLV and ASVV Series

## FEATURES:

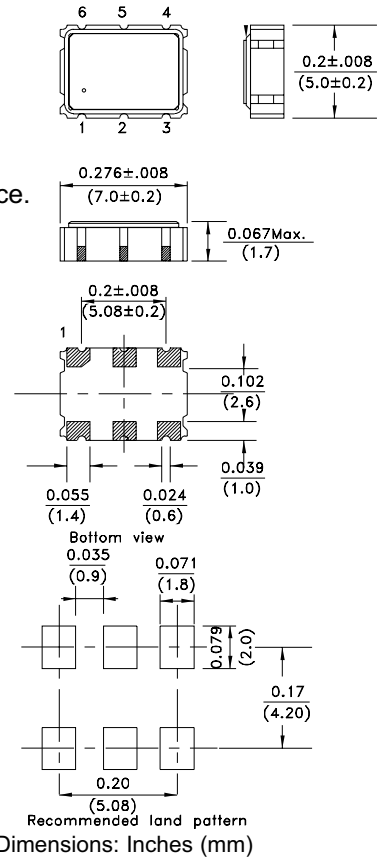
- Low profile (1.7 mm) ceramic VCXO.
- Enable / Disable functions.
- 7.0 mm x 5.0 mm seam welded.
- 5Vdc or 3.3Vdc.
- Suitable for reflow methods.
- HCMOS/TTL output.

## APPLICATIONS:

- Phase locked loops (PLLs).
- Synthesizers.
- Clock Recover, Digital transmission device.
- Digital set-top box.

## STANDARD SPECIFICATIONS

PARAMETERS	ASLV	ASVV
Frequency Range (F <sub>0</sub> )	1.00 MHz - 155.52 MHz (See Note)	
Operating Temperature (T <sub>OPR</sub> )	0°C to +70°C (See Option)	
Storage Temperature (T <sub>STO</sub> )	-40°C to +85°C	
Frequency Stability (ΔF/F <sub>0</sub> )	±50ppm max. (See Options)	
Supply Voltage (V <sub>dd</sub> )	5Vdc ±5%	3.3Vdc ±5%
Input Current (I <sub>dd</sub> )	10mA max. for F ≤ 20MHz 20mA max. for F ≤ 40MHz 30mA max. for F ≤ 60MHz	10mA max. for F ≤ 20MHz 15mA max. for F ≤ 40MHz 25mA max. for F ≤ 60MHz
Duty Cycle or Symmetry	40 / 60% max. (See Options)	
Rise and Fall Times (T <sub>R</sub> / T <sub>F</sub> )	8ns max.	
Output Load	15pF or 2TTL	
Output Voltage (V <sub>OH</sub> ) (V <sub>OL</sub> )	0.9 * V <sub>dd</sub> min. 0.1 * V <sub>dd</sub> max.	
Transfer Function	Positive	
Voltage Control (V <sub>c</sub> )	2.5Vdc ±2.0V	1.65Vdc ±1.5V
Frequency Deviation	±100ppm min. (See options)	±80ppm min. (See options)
Linearity	±10% max.	
Start-up Time (T <sub>OSC</sub> )	10ms max.	
Tristate Function (V <sub>IH</sub> ) (V <sub>IL</sub> )	'1' OR OPEN: OSCILLATION ≥ 2.2V '0' (HiZ) < 0.8V	
Period jitter one sigma	±10ps max.	
Period jitter absolute	±100ps max.	



**Note:**  
Higher frequencies available. Please call.

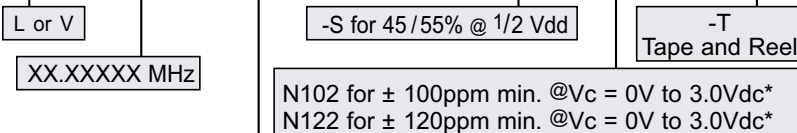
PIN NO.	FUNCTION
1	Voltage Control Vc
2	Tristate E/D
3	GND / Case
4	Output
5	N / C **
6	Vdd

\*\* pin 5 E/D  
(ASLV1 or ASVV1)

A bypass capacitor 0.01 μF is required from Vdd to Gnd.  
Please call us for higher frequencies. Test circuit, waveforms, see appendix B.  
Environmental and mechanical specifications see appendix C, Group 2.  
Marking, see appendix G. Tape and Reel, see appendix H. (1,000 pcs. reel).  
Application notes, see appendix A. Recommended handling, see appendix F.

## ORDERING OPTIONS

ASXV- Frequency - Temperature stability - Duty Cycle - Pulling - Packaging



Operating Temperature Range	Frequency stability (± ppm)					
	5ppm code	10ppm	15ppm	20ppm	30ppm	50ppm
0°C-50°C	I	0	0	0	0	0
0°C-60°C	B	0	0	0	0	0
-10°C-60°C	D	0	0	0	0	0
0°C-70°C	C	0	0	0	0	0
-10°C-70°C	F	0	0	0	0	0
-20°C-70°C	E	0	0	0	0	0
-40°C-85°C	L	0	0	0	0	0

0= available

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



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)

ABRACON IS  
ISO 9001 / QS 9000  
CERTIFIED