

VOLTAGE CONTROLLED TEMPERATURE COMPENSATED SMD CRYSTAL OSCILLATOR



7.0 x 5.0 x 2.5mm

ASVTX-H08



FEATURES:

- 0.01uF decoupling capacitor built-in
- Wide frequency range; frequency stability

APPLICATIONS:

- Test Equipment
- Cellular Base Station & GPS Navigation System
- Mobile communication equipment.

STANDARD SPECIFICATIONS:

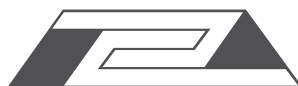
PARAMETERS	
Frequency Range	1.250MHz to 156.000MHz (Vdd=2.8, 3.0, and 3.3V) 1.250MHz to 30.000MHz (Vdd=5.0V. Please contact ABRACON for frequency higher than 30MHz.)
Standard Frequencies	10, 12.8, 13, 14.4, 15.36, 16.384, 19.2, 19.44, 19.68, 20, 25, 27, 38.88, 40, 77.76, 125, 155.52MHz
Operating Temperature	-30° C to +75° C (See Table 3 for options)
Storage Temperature	-50° C to +100° C
Frequency Stability:	
vs +25°C	± 2ppm
vs. Operating Temp.	± 2.5ppm standard (See Table 3 for options)
vs. Aging	± 1ppm /1st year max.
vs. Supply Voltage	± 0.3ppm (±5% change)
vs. Load	± 0.3ppm (±10% change)
vs. Reflow	+ 1ppm max. 1 reflow and measured 24 hours afterwards
Voltage Control Range (Vcc)	1.5V ±1.0V for all supply voltage
Supply Voltage (Vdd)	3.0V ±5% Standard (See options)
Current Consumption	See Table 1
Output Type	Square Wave
Output Logic Level:	Logic "1": 0.9*Vdd min.; Logic "0": 0.1*Vdd max.
Pullability	± 6ppm min with Vcc1.5V ±1.0V
Output Load:	15pF (TTL compatible)
Linearity:	10% max.
Transfer function:	Positive
Phase Noise (Reference only):	See Table 2
Input Impedance:	50kΩ min.
Rise and Fall Time:	10ns max., 20% ↔ 80% of the waveform
Duty Cycle (Symmetry) @ 50% VDD:	50%±10%
Start-up time:	10mS max. 5ms typ.

Table 1: Current Consumption

V _{DD}	Current Consumption (typical)			
	8.192MHz	10MHz	77.760MHz	155.52MHz
2.8V	2mA	3mA	14mA	26mA
3V	2mA	4mA	17mA	35mA
3.3V	2mA	4mA	17mA	35mA
5V	5mA	7mA		

Table 2: Phase Noise

Freq. (MHz)	Offset				
	10Hz	100Hz	1kHz	10kHz	100kHz
10	-115dBc/Hz	-135dBc/Hz	-148dBc/Hz	-152dBc/Hz	-155dBc/Hz
155.520	-72dBc/Hz	-110dBc/Hz	-125dBc/Hz	-132dBc/Hz	-125dBc/Hz



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OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ASVTX - H08 - - Frequency - -

	Supply Voltage (Vdd)
A	2.8V±5%
Blank*	3.0V±5%
B	3.3V±5%
C	5.0V±5%

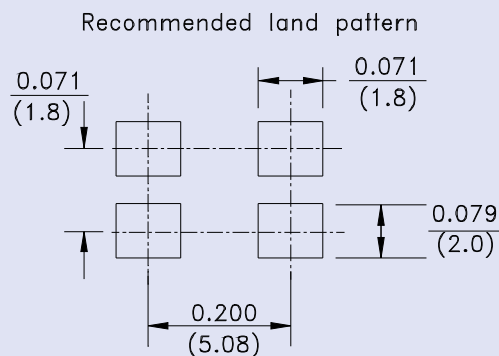
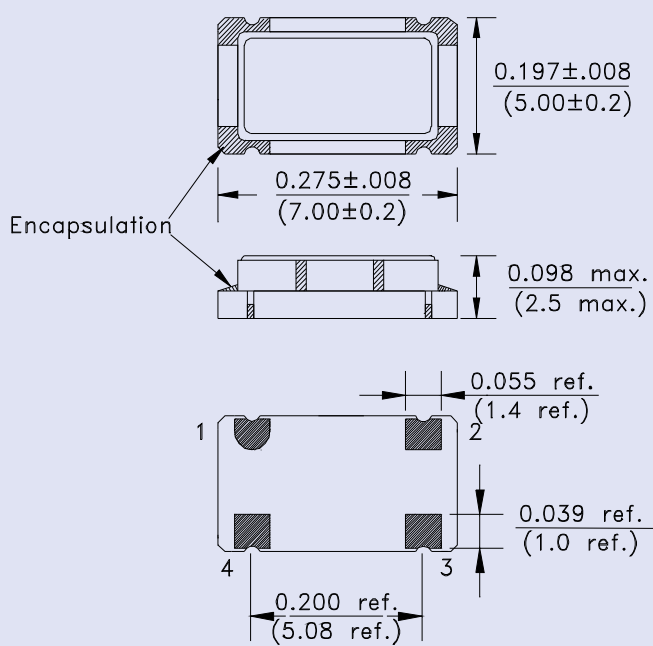
*3.0V±5% : Standard

Packaging	
Blank	Bulk
T	Tape and Reel

Table 3: Frequency Stability vs Operating Temp.

	±0.5ppm	±1ppm	±1.5ppm	±2ppm	±2.5ppm	±3ppm
0°C-50°C	D5	D10	D15	D20	D25	D30
-10°C to 60°C	-----	E10	E15	E20	E25	E30
-20°C to 70°C	-----	F10	F15	F20	F25	F30
-30°C to +75°C	-----	G10	G15	G20	STD	G30
-40°C to 85°C	-----	H10	H15	H20	H25	H30

OUTLINE DIMENSIONS:



PIN	FUNCTION
1	Vc
2	GND
3	Output
4	Vdd

Note: 0.01 uF decoupling capacitor built-in between PIN2 and 4.

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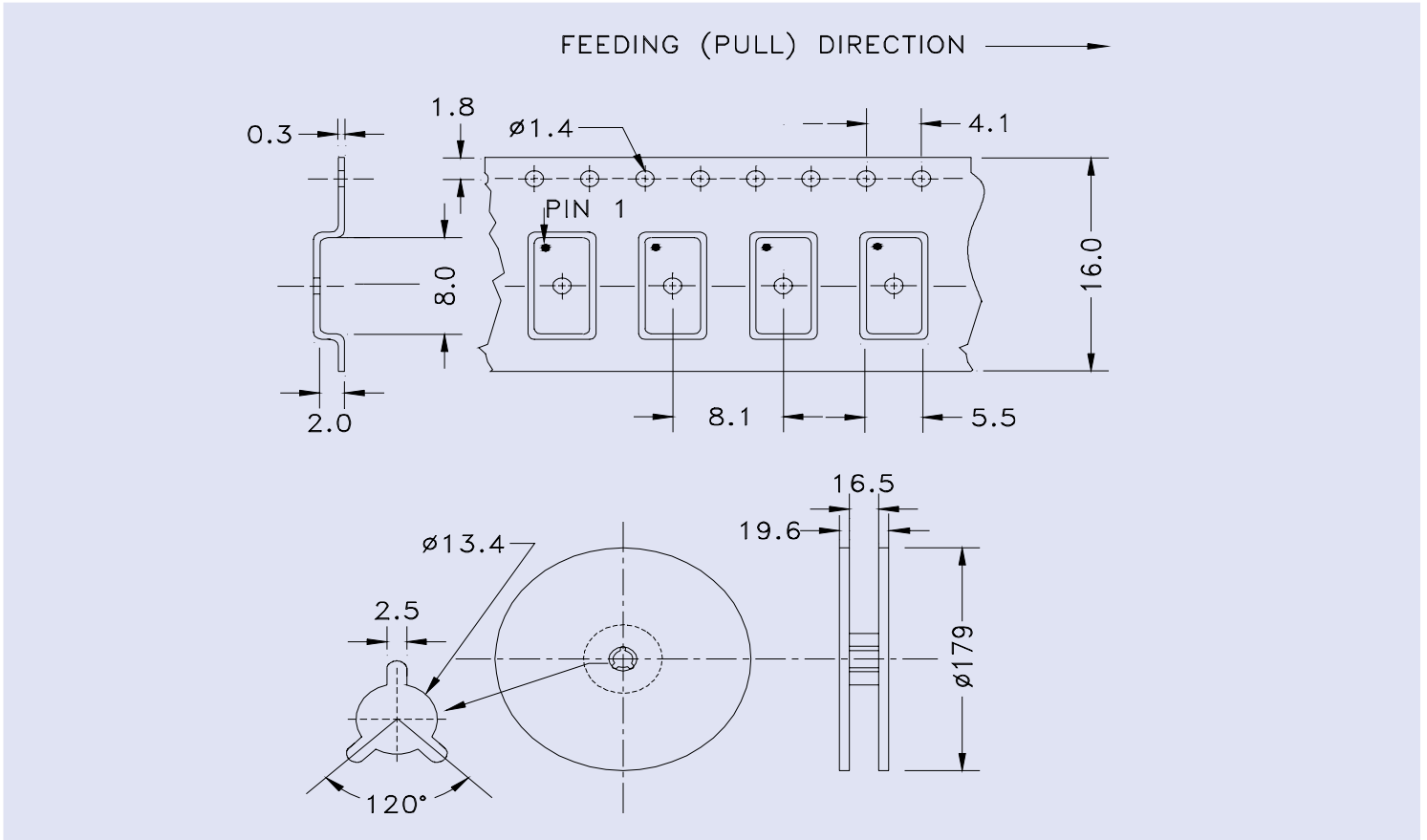
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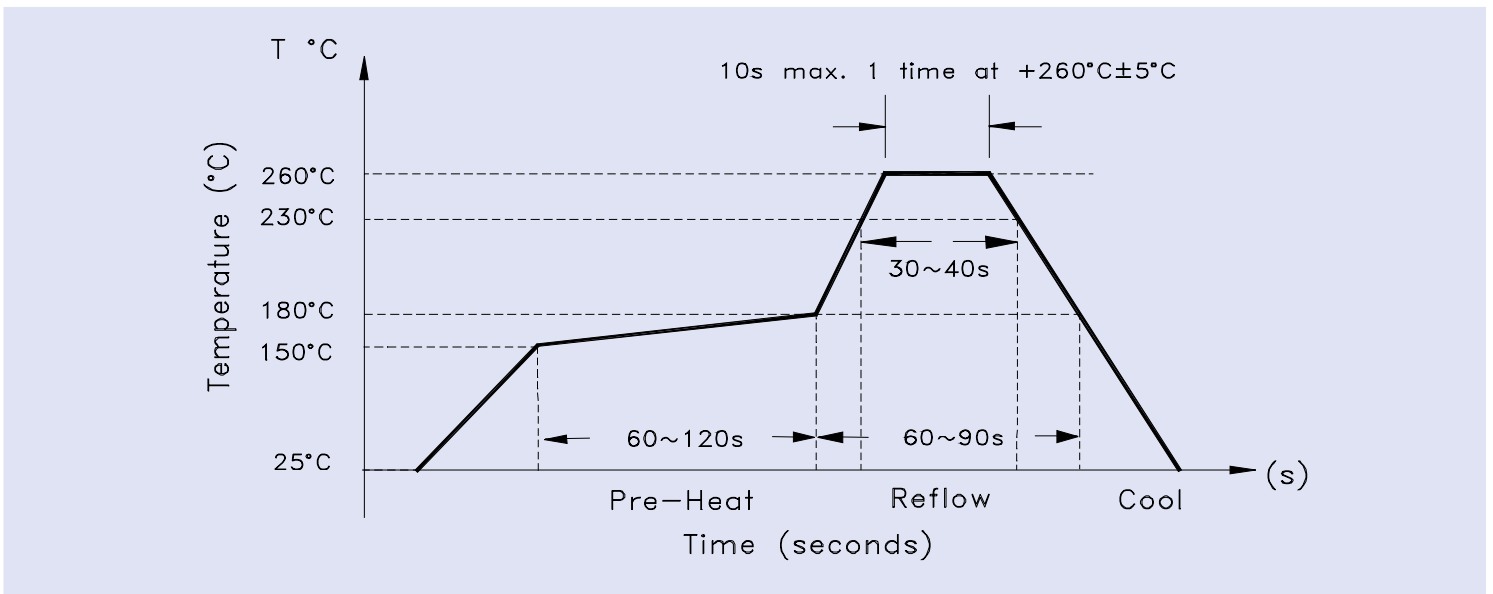
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TAPE & REEL:



REFLOW PROFILE:



NOTE: Abracon manufactured products are intended for general commercial and industrial use. For applications requiring high reliability and/or presenting extreme operating environment, written consent & authorization from Abracon is required.

ABRACON IS
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CERTIFIED



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