32.768KHz VOLTAGE CONTROLLED TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR

* RoHS COMPLIANT



7.0 x 5.0 x 2.5mm

> FEATURES:

• Compact and low in height.

ASVTX-HO8K

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

> STANDARD SPECIFICATIONS:

PARAMETERS 32.768KHz Frequency Range - 30° C to + 75° C (See Table 1 for options) **Operating Temperature** Storage Temperature - 50° C to + 100° C Frequency Tolerance @ 25°C ± 3.0 ppm Frequency Stability vs. Temp. ± 2.5 ppm standard (See Table 1 for options) Frequency Stability vs. Aging ± 1 ppm / 1st year Frequency Stability vs. Supply Voltage ± 0.3 ppm ($\pm 5\%$ change) Frequency Stability vs. Load ±10% ± 0.3 ppm (±10% change) Frequency Stability vs. Reflow ± 1 ppm max. 1 reflow and measured 24 hours afterwards Supply Voltage 3.0V Standard (See Table 2 for options) Pullability \pm 5ppm ~ 12ppm with Vcon = +1.5V \pm 1.0V(see note) **Output Voltage Level** 3.0V : "Logic 1" 2.7V min, "Logic 2" 0.3V max. Output Load 15pF Linearity 10% max **Transfer Function** Positive Phase Noise @ 25°C -65dBc/Hz @ 10Hz offset. -100dBc/Hz @ 100Hz offset -130dBc/Hz @ 1KHz offset -150dBc/Hz @ 10KHz offset -150dBc/Hz @ 100kHz offset 3.5mA typ @ +3.3V / 7mA typ. @ +5.0V **Current Consumption Rise and Fall Time** 20% to 80% waveform: 3nS typ. Duty Cycle (Symmetry) 40/60%max @ 1/2V_{DD} (see option) Start-up Time 2msec typ. **Output Wave Form HCMOS**

> APPLICATIONS:

Test Equipment

Cellular Base Station & GPS Navigation System

Mobile communication equipment.



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PIN NO. CONNECTIONS

Vc

Ground

Output

VCC

1

2

3

4

7.0 x 5.0 x 2.5mm

ASVTX-H08K

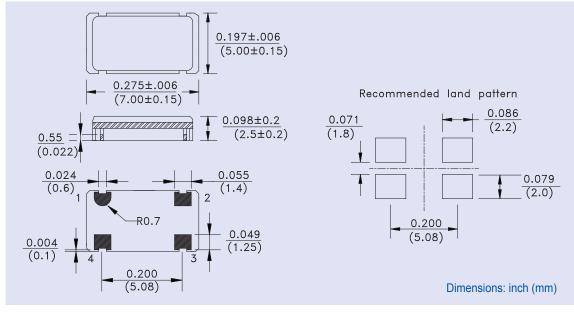
> OPTIONS & PART IDENTIFICATION:

ASVTX-H08K - 32.768KHz - Voltage - Temperature & Freq Stability - Symmetry - Packaging

Voltage option: Blank for 3.0V A for 2.8V B for 3.3V C for 5V Temp & Stability option: See Table 1 Symmetry option: S for 45/55% @1/2Vdd Packaging option: T for Tape and Reel

Note: +2.8V, +3.0V, +3.3V and +5.0V units all have Vcon= +1.5V±1.0V

> OUTLINE DRAWING:



\triangleright	TABLE	1:

]	±2.5ppm	±2.0ppm	±1.5ppm	±1ppm	
]	D25	D20	D15	D10	-10°C to 60°C
]	E25	E20	E15	E10	-20°C to +70°C
< Standard	F25	F20	F15	F10	-30°C to 75°C
]	G25	G20	G15		-40°C to 85°C

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