

# 32.768kHz CERAMIC SMD CRYSTAL OSCILLATOR



7.0 x 5.0 x 1.6 mm

ASVK



RoHS  
Compliant

## FEATURES:

- Industrial operating temperature range available
- CMOS output
- Small surface mount package
- Compact and low in height

## APPLICATIONS:

- Real time clocks
- System References

## STANDARD SPECIFICATIONS:

PARAMETERS	
ABRACON P/N	ASVK Series
Frequency Range	32.768kHz
Operating Temperature	0°C to +70°C (See options)
Storage Temperature	-55°C to +125°C
Frequency Tolerance at 25°C	± 100ppm max. (See options)
Supply voltage (Vdd)	3.3 Vdc ± 10% (see options)
Input Current	7mA max
Output load	15pF or 10TTL
Output voltage	VOH = 0.9*Vdd min.; VOL = 0.1*Vdd max.
Rise and fall time (Tr/Tf)	250ns max.
Start-up time	30 ms max.
Output type	HCMOS
Aging:	± 5ppm/year max. @ 25°C
Symmetry(Duty Cycle)	40/60% (see options)
Tri-state function	Logic "1" (2.0V min) or open = OSC Logic"0" (0.8V max) = Hi Z output disabled

## OPTIONS & PART IDENTIFICATION:

[Left blank if standard]

ASVK - 32.768kHz - □ - □ - □ - □ - □ - □

Supply Voltage	
Y	2.8V±5%
Z	3.0V±10%

Operating Temp.	
E	-20°C to +70°C
F	-30°C to +70°C
N	-30°C to +85°C
L	-40°C to +85°C

\*Contact ABRACON for extended temperature range.

Freq. Stability	
J	± 20 ppm
R	± 25 ppm
K	± 30 ppm
H	± 35 ppm
B	± 40 ppm
C	± 50 ppm

Symmetry	
S	45/55% Duty Cycle < 10MHz

Packaging	
T	Tape and Reel

Tri-State Function	
A	Tri-state



# 32.768kHz CERAMIC SMD CRYSTAL OSCILLATOR



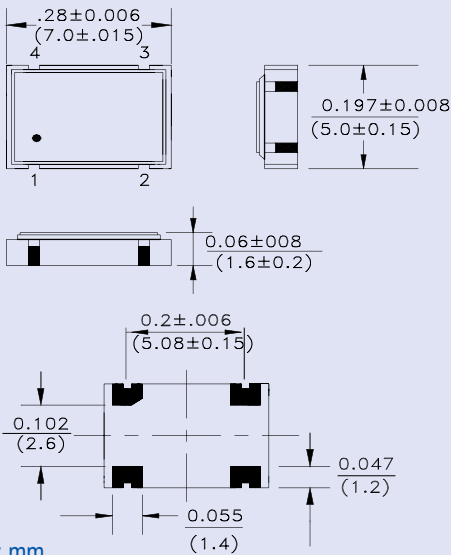
7.0 x 5.0 x 1.6 mm

ASVK

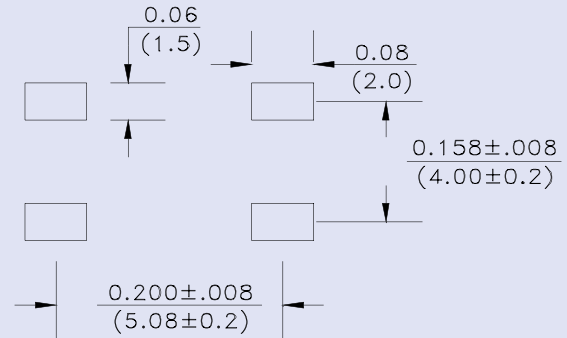


RoHS  
Compliant

## OUTLINE DRAWING:



## Recommended Land Pattern

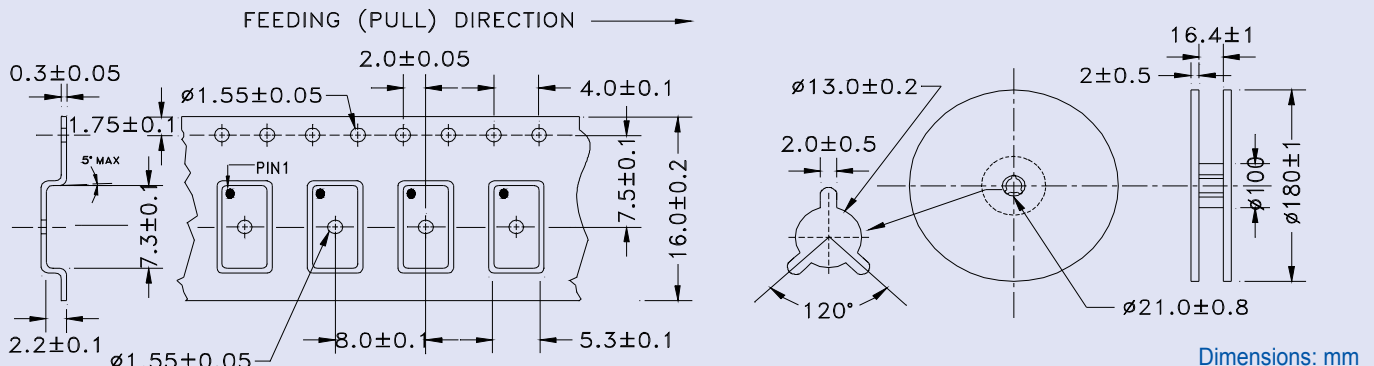


### Note:

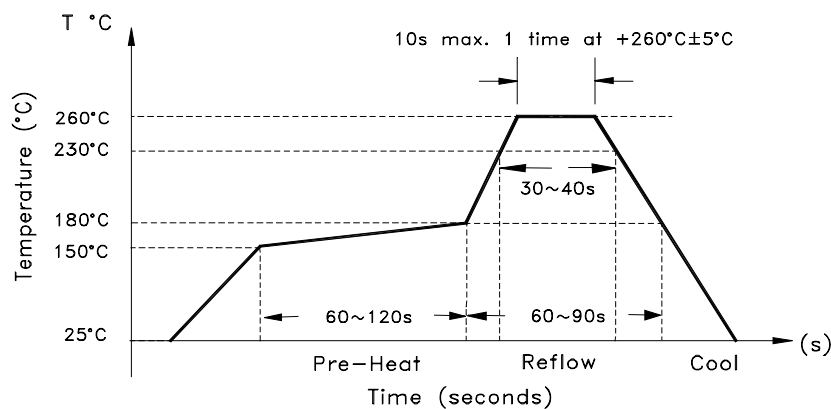
It is recommended to use an approximately 0.01uF bypass capacitor between PIN 2 and 4.

PIN	FUNCTION
1	TRI-STATE or NC
2	GND
3	Output
4	VCC

## 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  
ISO 9001 / QS 9000  
CERTIFIED



Visit [www.abracon.com](http://www.abracon.com) for Terms & Conditions of Sale **Revised: 08.07.09**  
30332 Esperanza, Rancho Santa Margarita, California 92688  
tel 949-546-8000 | fax 949-546-8001 | [www.abracon.com](http://www.abracon.com)