

# 32.768kHz CERAMIC SMD CRYSTAL OSCILLATOR

ASFLK SERIES



RoHS  
Compliant



5.0 x 3.2 x 1.3mm

## FEATURES:

- Pb-Free/RoHS Compliant
- Smallest industry package
- Tri state function
- Suitable for high density SMT
- IR reflow capable
- Seam sealed

## APPLICATIONS:

- CCD clock for VTR camera
- Computers and peripherals
- Portable MP3 players and games

## STANDARD SPECIFICATIONS:

PARAMETERS	
ABRACON P/N:	ASFLK Series
Frequency range:	32.768kHz
Operating temperature:	0°C to + 70°C (see options)
Storage temperature:	-55°C to +125°C
Overall Frequency Stability:	± 100ppm max. (see options)
Supply Voltage (Vdd):	3.3 Vdc ± 10% (see options)
Supply Current:	7 mA max.
Symmetry:	40/60 % max. @ 1/2Vdd (see options)
Rise and Fall Times (Tr/Tf):	250 nS max.
Output Load:	15pF
Output Voltage:	VOL = 2.97V min.; VOH = 0.33V max.
Start-up-time:	10ms max.
Tristate function:	Logic "1" or open: Oscillation Logic "0" (VIL < 0.8 Vdc) : Hi Z
Aging at 25°C/year:	± 5ppm/year max.

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## OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ASFLK - 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

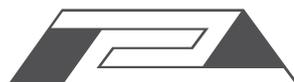
\*Contact ABRACON for extended temperature range.

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

Contact ABRACON for tighter freq. stability.

Packaging	
T	Tape and Reel

Symmetry	
S	45/55% max at 1/2Vdd



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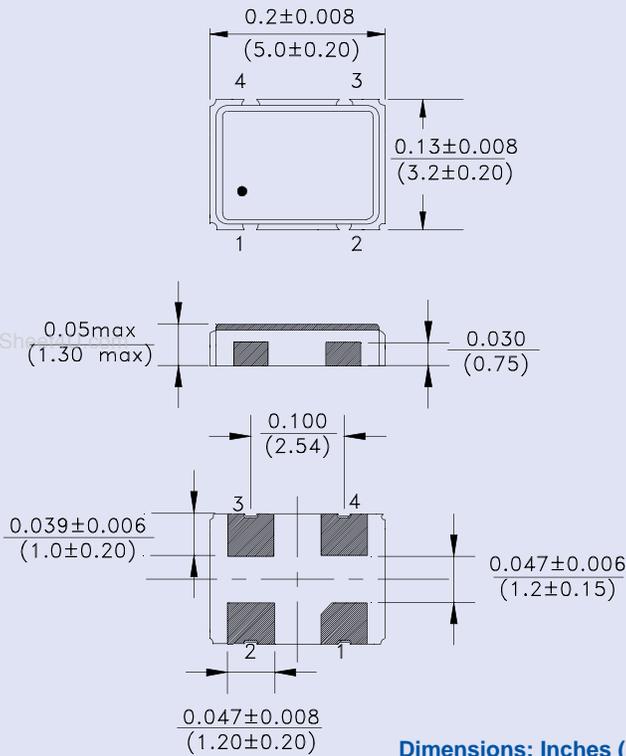


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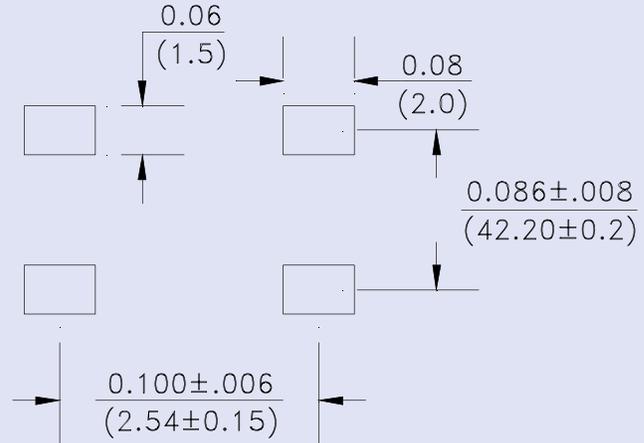


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## OUTLINE DRAWING:



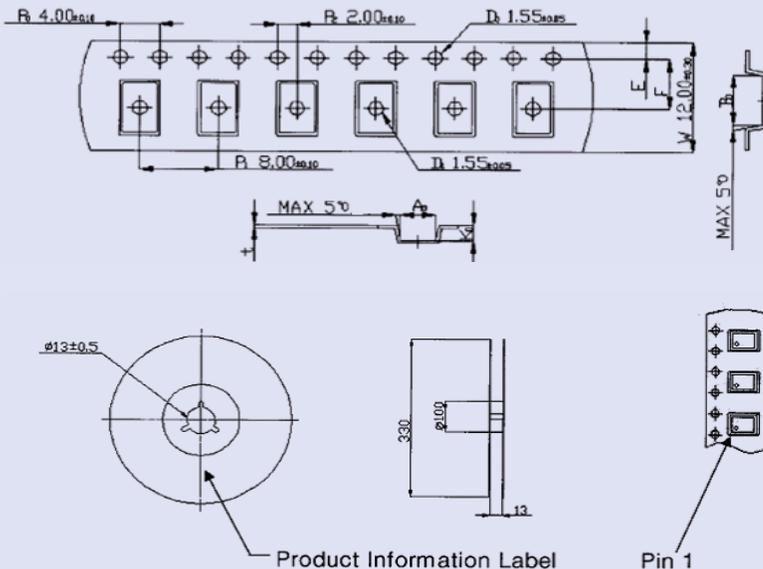
## Recommended Land Pattern



Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

PIN	FUNCTION
1	E/D
2	GND
3	Output
4	Vdd

## TAPE & REEL:



Symbol	Dimension
A0	3.55±0.1
B0	5.40±0.1
E	1.75±0.1
F	5.50±0.1
K0	1.70±0.1
t	0.30±0.05

Tape and reel (1,000pcs/reel)

Dimensions: mm

ABRACON IS  
ISO 9001 / QS 9000  
CERTIFIED



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