

# 32.768 kHz SMD LOW PROFILE CRYSTAL

ABS10

ABS10



RoHS  
Compliant



4.9 x 1.8 x 1.0 mm

*ABS10 is not recommended for new designs. Please consider our reduced size ABS07 or ABS06.*

## FEATURES:

- Low frequency in small size SMD
- 1.0mm height ideal for high density circuit boards
- Ceramic package offers excellent environmental & heat resistance
- Extended temperature -40°C to +85°C for industrial applications

## APPLICATIONS:

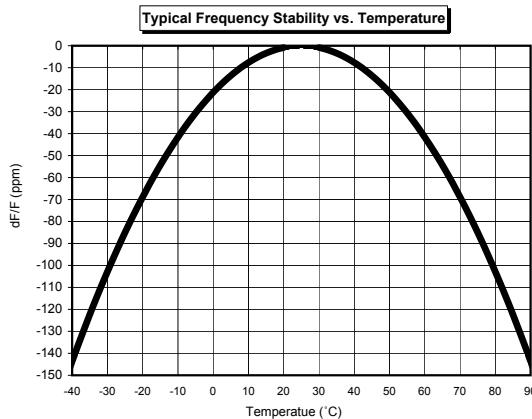
- Wide range in communication & measuring equipment
- Commercial & Industrial applications
- Wireless communications
- PDA and Palm Pilots

## STANDARD SPECIFICATIONS:

### PARAMETERS

ABRACON P/N	ABS10 Series
Nominal Frequency	32.768 kHz
Operating Temperature	-40°C to +85°C
Turn-over Temperature	+25°C to $\pm 5^\circ\text{C}$
Storage Temperature	-55°C to +125°C
Frequency Tolerance	$\pm 20$ ppm max. (see option)
Temperature Coefficient ( $\beta$ )	$-0.034 \pm 0.006$ ppm/T <sup>2</sup>
Equivalent Series Resistance	70 kohms max.
Load Capacitance CL	12.5 pF (see option)
Drive Level	1.0 $\mu\text{W}$ max.
Aging (first year) 25°C first year	$\pm 5$ ppm max.
Insulation Resistance	500 M $\Omega$ with 100 Vdc $\pm 15$ V
Shunt capacitance Co	1.0pF typ.
Motional capacitance C1	2.0fF typ.

### TUNING FORK CRYSTAL TEMPERATURE CURVE



## OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ABS10 - 32.768kHz -  -  -



#### Load Capacitance

Blank: 12.5pF
9: 9pF
7: 7pF

#### Freq. Tolerance

Blank: $\pm 20$ ppm
1: $\pm 10$ ppm
4: $\pm 30$ ppm

#### Packaging

Blank: Bulk
T: Tape & Reel

\*Contact ABRACON for  
non-standard load capacitances.

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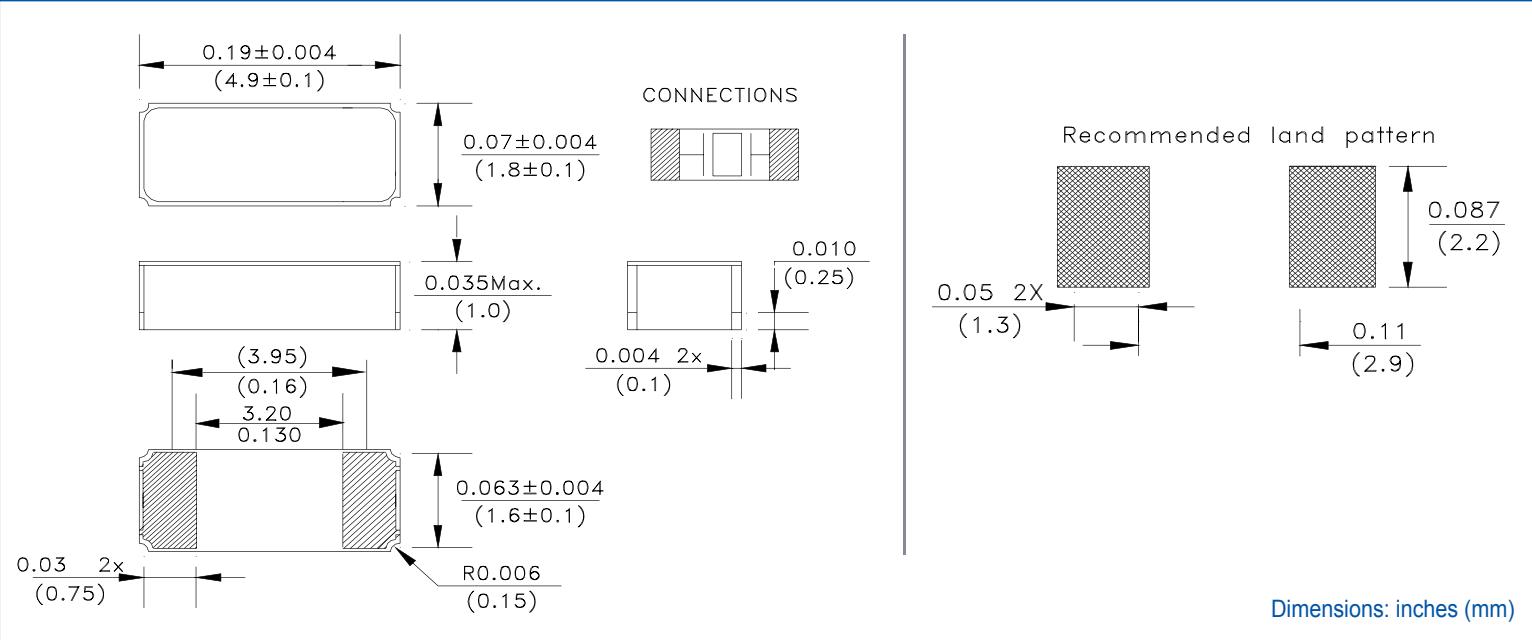
ABS10



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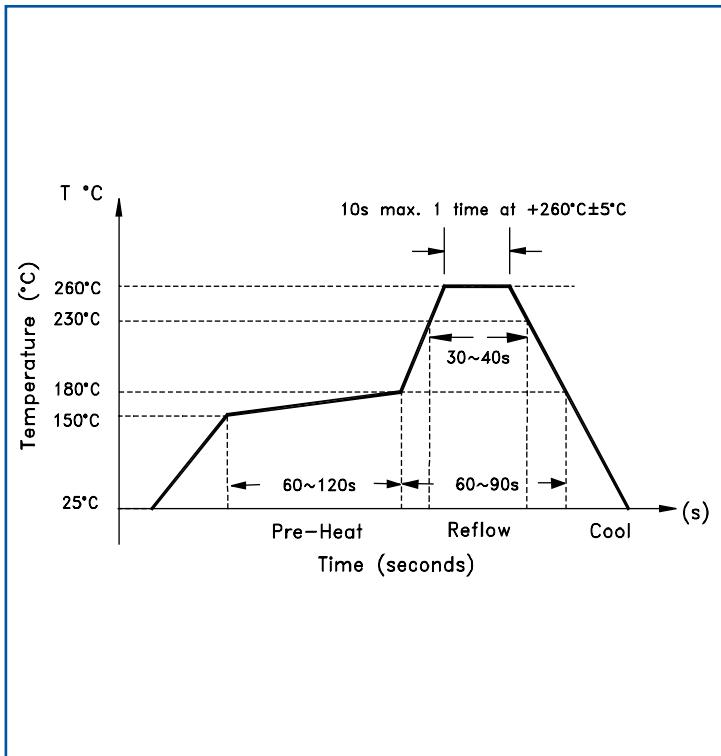
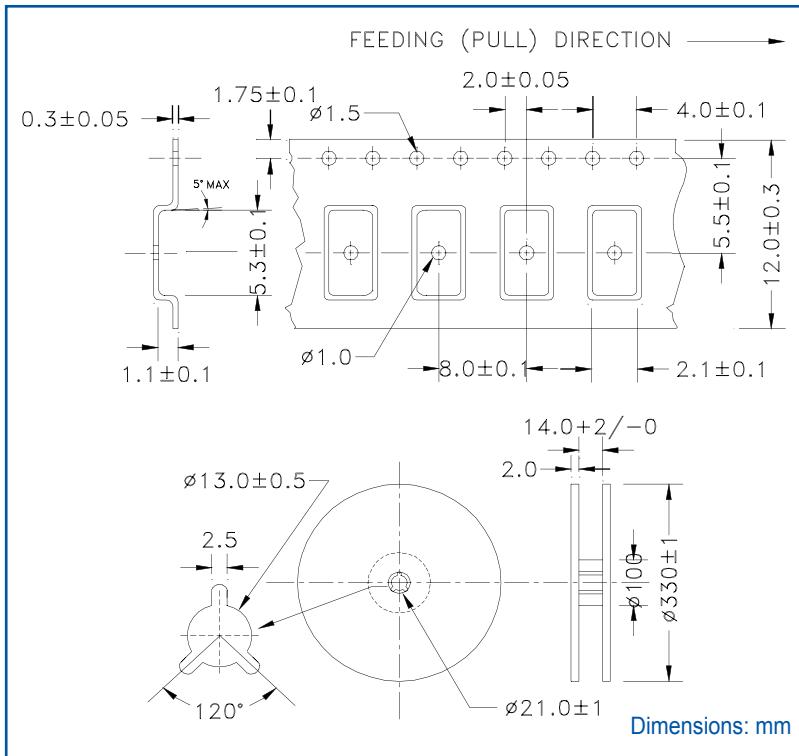
4.9 x 1.8 x 1.0 mm

## ► OUTLINE DRAWING:



► **TAPE & REEL:** T = Tape and reel 3,000pcs/reel

## REFLOW PROFILE



Need a test socket for the ABS10 Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here: P/N AXS-4918-02-11](#)

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ABRACON IS  
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CERTIFIED



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