

# 32.768 kHz LOW FREQUENCY SMD CRYSTAL



**ABS25**

Pb in High Temperature Solder  
(exempt per RoHS 2002/95/EC Annex (7))

**RoHS  
Compliant**

➤ **FEATURES:**

- Plastic molded SMD
- 2.5mm height ideal for high density circuit boards
- Suitable for RoHS compliant reflow
- Extended temperature -40°C to +85°C for industrial applications

➤ **APPLICATIONS:**

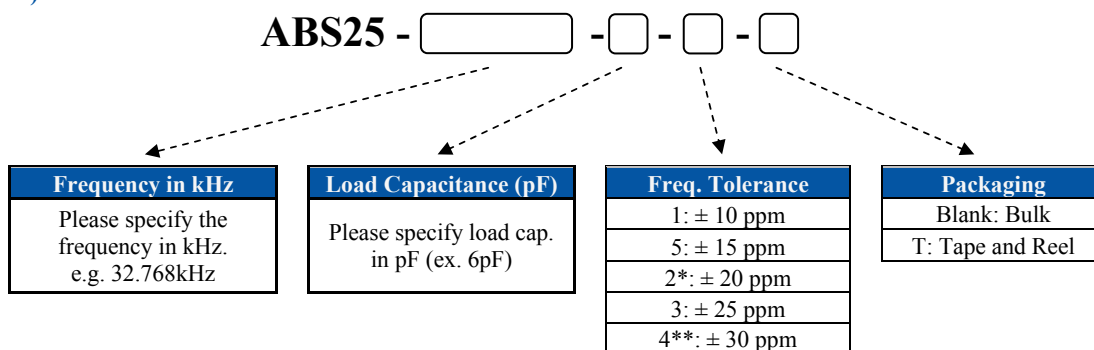
- Wide range in communication & measuring equipment
- Commercial & Industrial applications
- Computer clock

➤ **STANDARD SPECIFICATIONS:**

Parameters	Minimum	Typical	Maximum	Units	Notes
Nominal Frequency	-----	32.768	-----	kHz	
Frequency Range	30	-----	100	kHz	
Operating Temperature	-40	-----	+85	°C	
Turnover Temperature	+20	+25	+30	°C	
Storage Temperature	-55	-----	+125	°C	
Frequency Tolerance @+25°C	-20	-----	+20	ppm	32.768kHz
	-30	-----	+30		Other frequencies See options
Capacitance Ratio (C0/C1)	-----	450	-----		32.768kHz
	-----	425 to 800	-----		Other frequencies
Frequency Coefficient (β)	-0.040	-0.034	-0.028	ppm/T <sup>2</sup>	
Equivalent series resistance (R1)	-----	-----	50	kΩ	
Shunt capacitance (C0)	-----	1.35	-----	pF	32.768kHz
		0.8 to 1.7		pF	Other frequencies
Load capacitance (CL)	-----	12.5	-----	pF	See options
Drive Level	-----	-----	1	μW	
Aging	-3	-----	+3	ppm	@25°C±3°C First year
	-5	-----	+5		
Insulation Resistance	500	-----	-----	MΩ	@ 100Vdc ± 15V

➤ **OPTIONS AND PART IDENTIFICATION:**

(Left blank if standard)



\*STD for 32.768kHz. Please leave this blank if F is 32.768kHz.

\*\*STD for other frequencies. Please leave this blank if F is not 32.768kHz.

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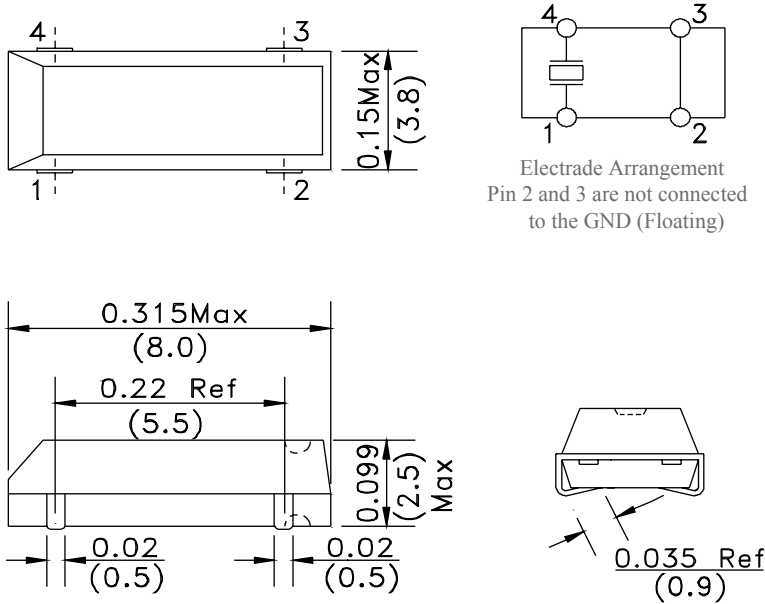


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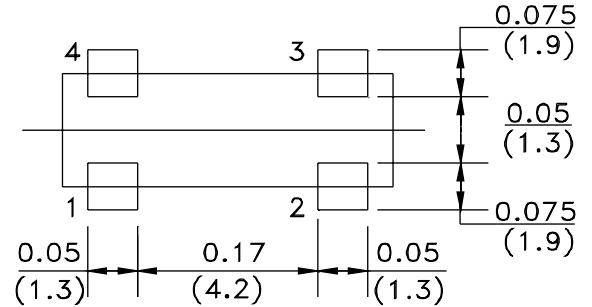
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## OUTLINE DRAWING:



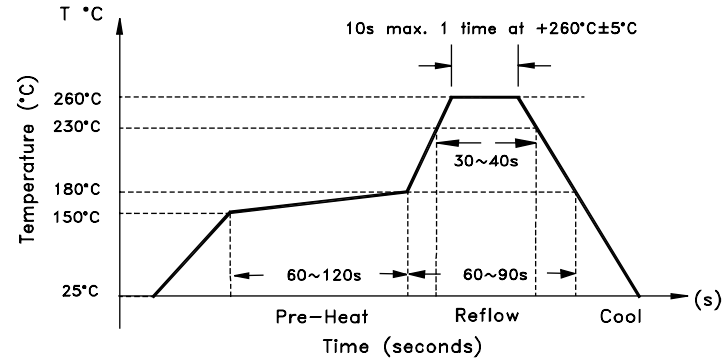
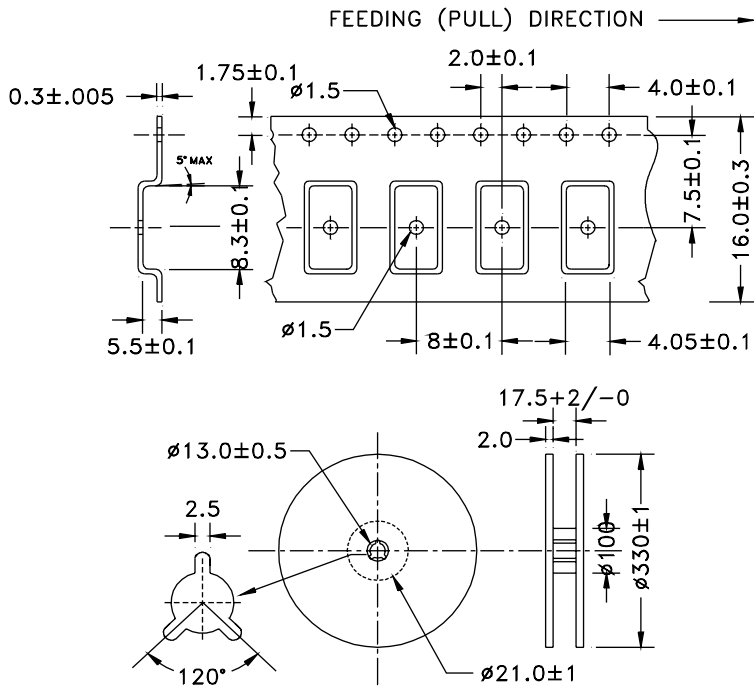
## Recommended Land Pattern



Dimensions: (inches) mm

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

## REFLOW PROFILE



**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS  
ISO9001:2008  
CERTIFIED



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