# 32.768 kHz LOW FREQUENCY SMD CRYSTAL



Pb in High Temperature Solder (exempt 7(a) per 2015/863/EU Annex) Compliant

#### **FEATURES:**

- Plastic molded SMD
- 2.5mm height ideal for high density circuit boards
- Suitable for RoHS compliant reflow

ABS25

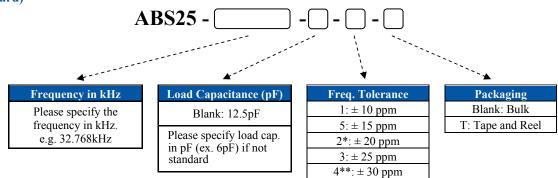
• Extended temperature -40°C to +85°C for industrial applications

### **STANDARD SPECIFICATIONS:**

Parameters	Minimum	Typical	Maximum	Units	Notes
Nominal Frequency		32.768		kHz	
Frequency Range	30		100	kHz	Other frequencies
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
Capacitance Ratio (C0/C1)		450			32.768kHz
		425 to 800			Other frequencies
Frequency Coefficient (β)		-0.035±0.01		ppm/°C <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 @ 25°C±3°C (First year)	-3		+3	ppm	32.768kHz
	-5		+5		Other frequencies
Insulation Resistance	500			MΩ	( <i>a</i> ) $100$ Vdc $\pm 15$ V

## **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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**REVISED: 09-30-19** 

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### **APPLICATIONS:**

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

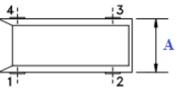
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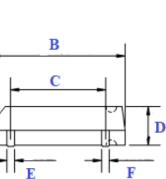


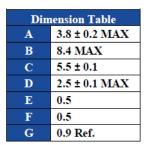
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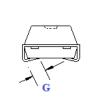
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## **OUTLINE DRAWING:**



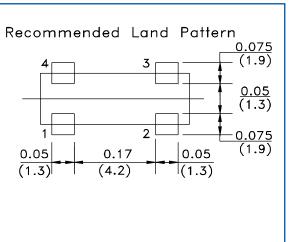




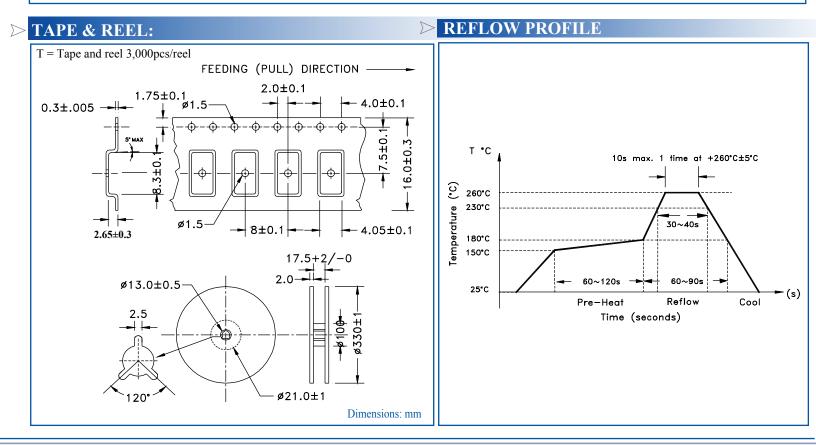


Electrode Arrangement

Pin 2 and 3 are not connected to the GND (Floating)



Dimensions: (inches) mm



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