# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



### Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## 32.768 kHz LOW FREQUENCY SMD CRYSTAL



Pb in High Tempe rature Solder (exempt per RoHS 2002/95/EC Annex (7)) Compliant

#### **FEATURES:**

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

ABS25

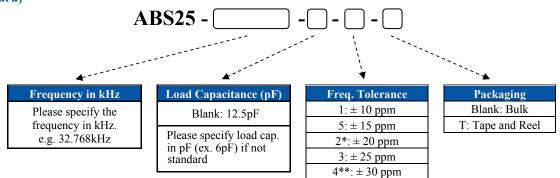
• Extended temperature -40°C to +85°C for industrial applications

#### **STANDARD SPECIFICATIONS:**

| Parameters                        | Minimum | Typical    | Maximum | Units              | Notes                             |
|-----------------------------------|---------|------------|---------|--------------------|-----------------------------------|
| Nominal Frequency                 |         | 32.768     |         | kHz                |                                   |
| Frequency Range                   | 30      |            | 100     | kHz                |                                   |
| 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<br>See options  |
| Capacitance Ratio (C0/C1)         |         | 450        |         |                    | 32.768kHz                         |
|                                   |         | 425 to 800 |         |                    | Other frequencies                 |
| Frequency Coefficient (B)         | -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                         |
|                                   | -5      |            | +5      |                    | First year                        |
| 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.





2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 12.01.15** Ph. 949.546.8000 | Fax. 949.546.8001 Visit www.abracon.com for Terms and Conditions of Sale

#### **APPLICATIONS:**

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

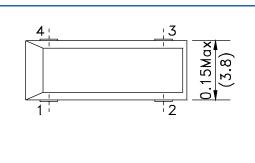
## 32.768 kHz LOW FREQUENCY SMD CRYSTAL

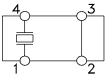


ABS25

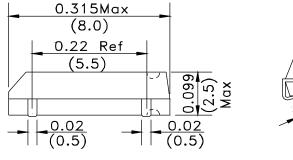
Pb in High Tempe rature Solder (exempt per RoHS 2002/95/EC Annex (7)) Compliant

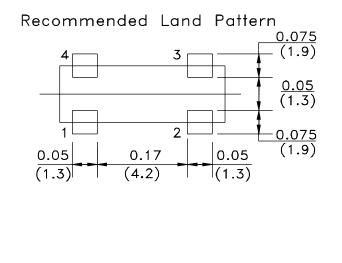
#### **OUTLINE DRAWING:**



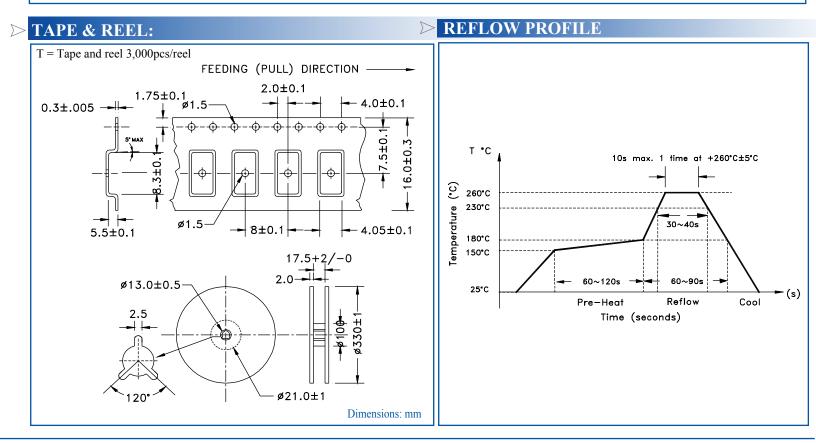


Electrode Arrangement Pin 2 and 3 are not connected to the GND (Floating)





Dimensions: (inches) mm



0.035 Ref

(0.9)

**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.





2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 12.01.15** Ph. 949.546.8000 | Fax. 949.546.8001 Visit www.abracon.com for Terms and Conditions of Sale