



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



# Automotive & Industrial Grade 32.768kHz SMD Low Profile Crystal

ABS07AIG



3.2 x 1.5 x 0.9 mm

**ABS07AIG**

**Pb** | **RoHS/RoHS II Compliant**

**Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable**

➤ **FEATURES:**

- PPAP ready and supported
- TS16949 certified production lines
- Miniature size and low profile package: 3.2 x 1.5 x 0.9mm
- AEC-Q200 qualified
- Hermetically sealed ceramic package assures high precision and reliability
- Extended operating temperature range: -40°C to +125°C
- RoHS compliant and Pb free

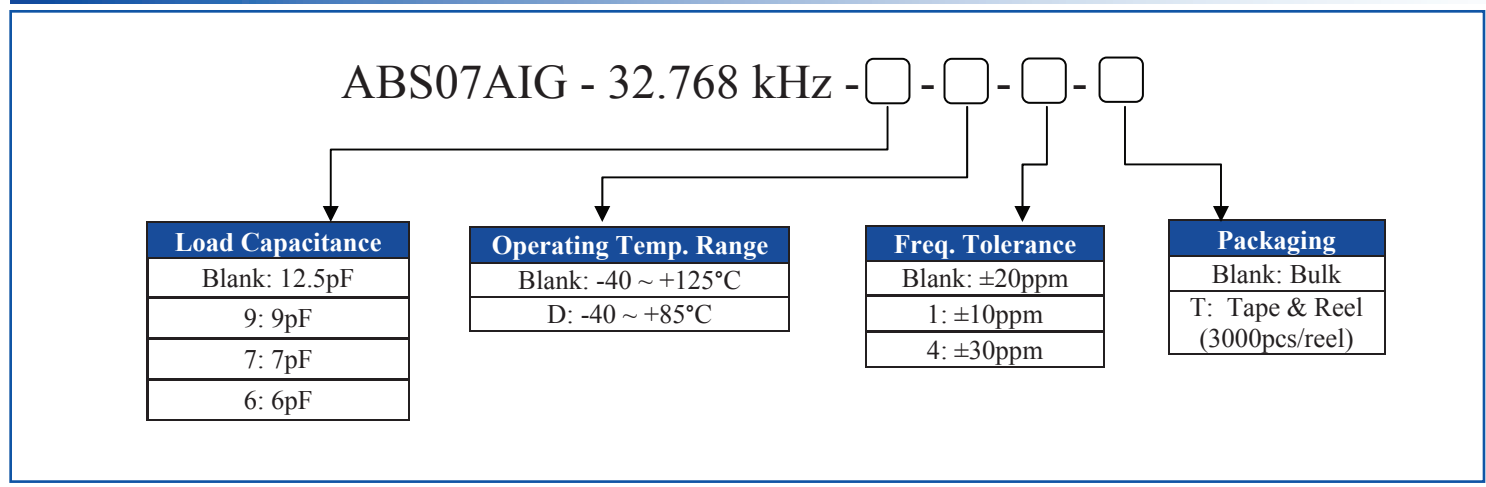
➤ **APPLICATIONS:**

- Navigation
- Car entertainment system
- COTS Military
- Test equipment
- Industrial control
- Medical Electronics (non-life dependent)
- Comfort control
- Instrument panel
- Telematics
- Industrial automation

➤ **STANDARD SPECIFICATIONS:**

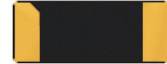
Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency	32.768			kHz	
Operation Mode	Flexural Mode (Tuning Fork)				
Operating Temperature	-40		+125	°C	
Storage Temperature	-55		+125	°C	
Frequency Tolerance @+25°C	-20		+20	ppm	See options
Temperature Coefficient:	-0.040	-0.036		ppm/T <sup>2</sup>	
Turn-over temperature:	+20	+25	+30	°C	
Equivalent series resistance (R1)			80	kΩ	
Shunt capacitance (C0)		1.1		pF	
Motional capacitance (C1)		4.7		fF	
Load capacitance (CL)	12.5			pF	See options
Drive Level		0.1	0.5	μW	
Q value	10000	30000			
Aging@25°C	-3		3	ppm	First year
Insulation Resistance	500			MΩ	

➤ **OPTIONS AND PART IDENTIFICATION: (left blank if standard)**



# Automotive & Industrial Grade 32.768kHz SMD Low Profile Crystal

ABS07AIG

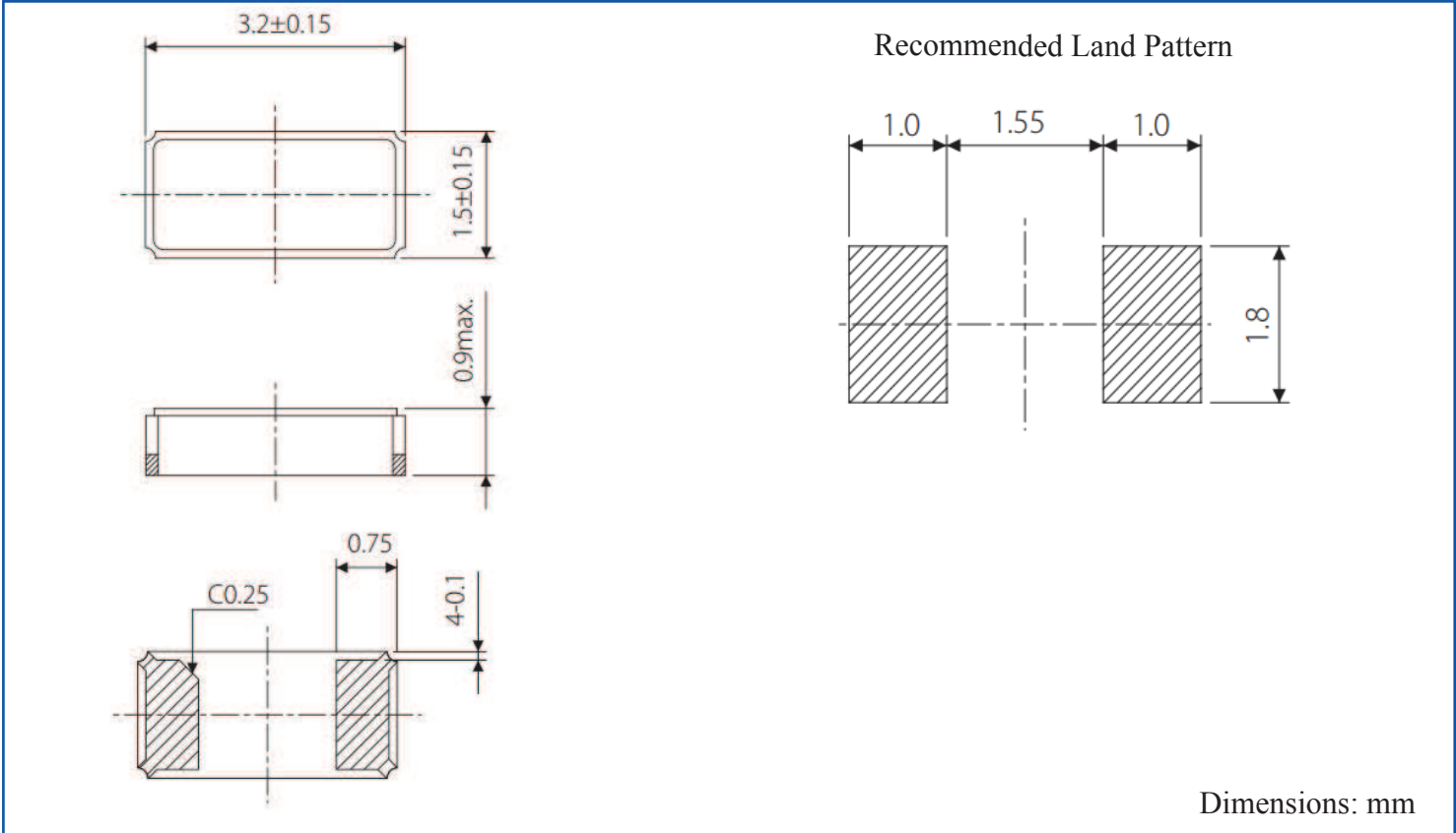


3.2 x 1.5 x 0.9 mm

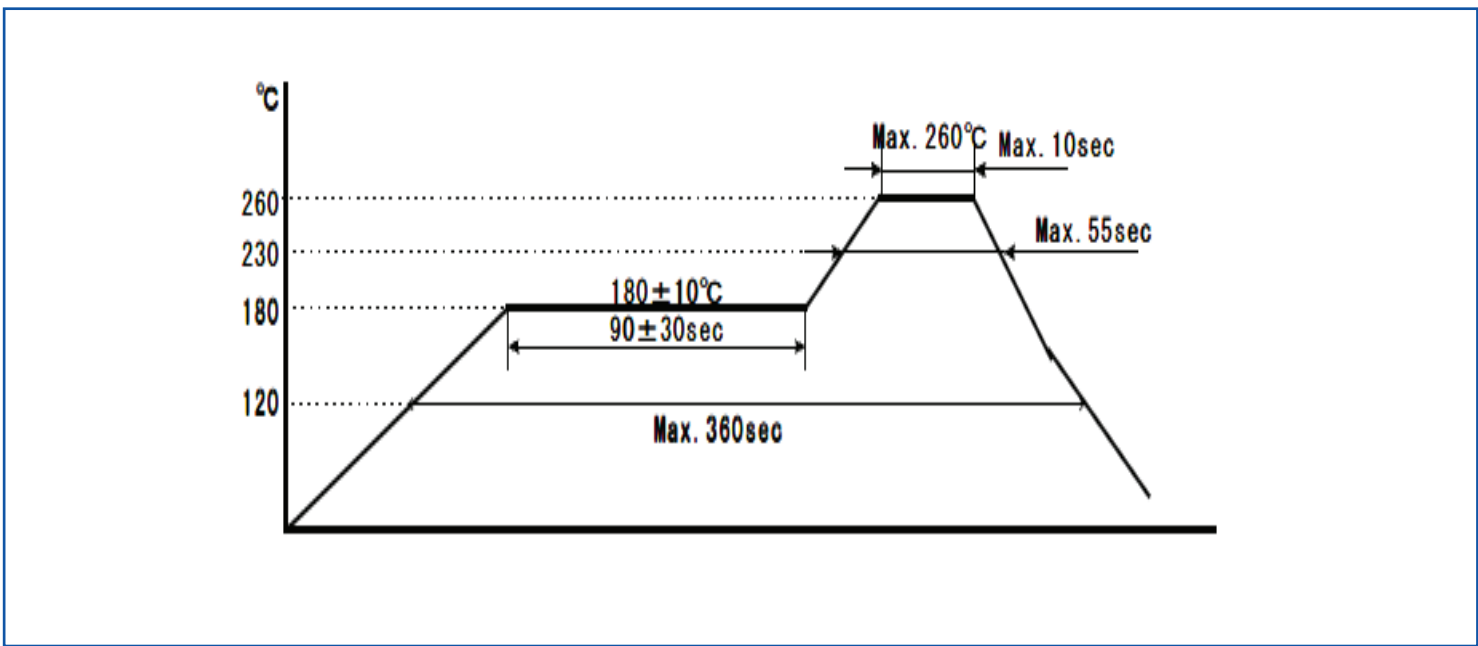
ABS07AIG

RoHS/RoHS II Compliant

## OUTLINE DIMENSIONS:



## REFLOW PROFILE:



# Automotive & Industrial Grade 32.768kHz SMD Low Profile Crystal

ABS07AIG



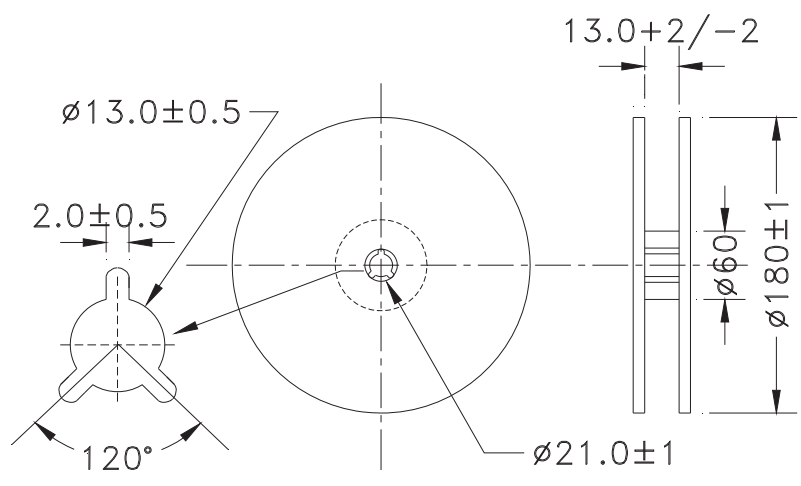
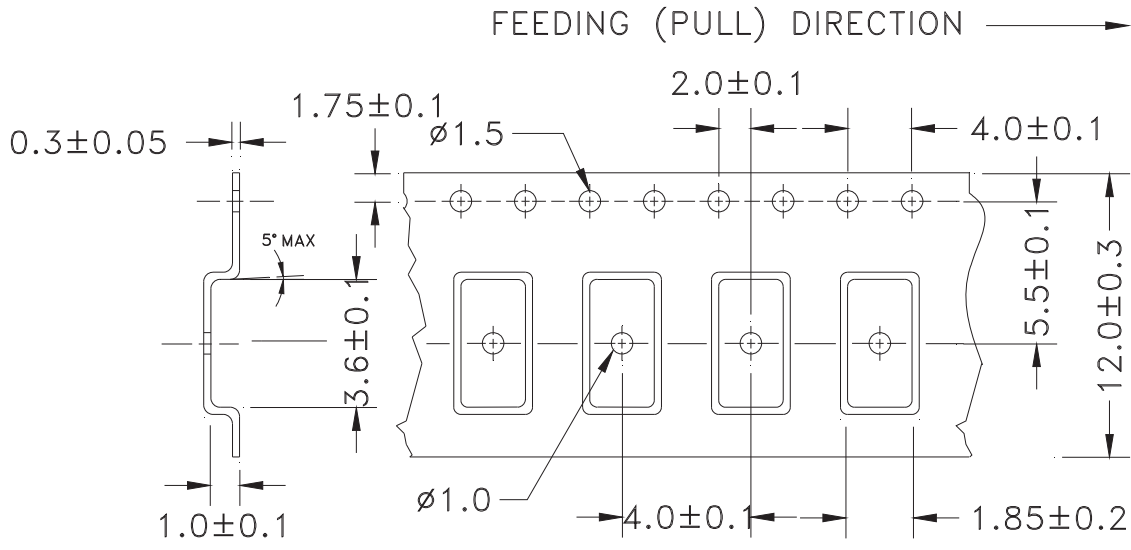
3.2 x 1.5 x 0.9 mm

ABS07AIG

RoHS/RoHS II Compliant

## TAPE & REEL:

T=Tape and reel (3,000pcs/reel)



**Dimensions: mm**

**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: 12.09.15**  
 Ph. 949.546.8000 | Fax. 949.546.8001  
 Visit [www.abracon.com](http://www.abracon.com) for Terms and Conditions of Sale

# Pierce Analyzer System (PAS) Advanced Board Characterization Service

*Abracon PAS System enables us to offer Automotive, Medical, and Industrial application customers a comprehensive, automated assessment of the Pierce Oscillator loop, in concert with the customers selected Quartz Crystal. The PAS System Circuit Analysis report is ideally suited for PPAP documentation, design history reporting, and overall assurance of a reliable optimized circuit.*

## **Features:**

- Circuit characterization; providing best possible match between Quartz Crystal, oscillator loop and associated components
- Eliminates probability of oscillator start-up issues related to inadequate design or marginal component performance
- Eliminates production launch issues related to crystal oscillator based timing circuit
- Solves design margin uncertainty

## **Deliverables:** A detail Report encompassing:

### • **Stand alone Quartz Crystal characteristics including:**

- Motional parameters (Cm, Lm, ESR & C0)
- Narrow Band Frequency Response Plot
- Wide Band Frequency Response Plot
- Admittance versus Susceptance plot
- Frequency dependence versus load capacitance plot

### • **Oscillator loop characteristics including:**

- Initial frequency accuracy and drive level as seen by the crystal with measured ESR
- Worst case projected drive level with maximum specified ESR
- Safety Factor of the oscillator loop under both typical and maximum ESR
- Recommendation on proper component selection (C1, C2 & Rs when applicable) for best compromise with respect to Safety Factor and Frequency accuracy
- Recommendation on the Abracon Crystal part # with proper plating load and other key attributes to enable the most robust design, specific to the  $\mu$ controller/processor implemented

## **Ordering information:**

<b>PAS-BC1WK</b>	Analysis & Report with 1-week maximum lead-time
<b>PAS-BC2WK</b>	Analysis & Report with 2-week maximum lead-time
<b>PAS-BC3WK</b>	Analysis & Report with 3-week maximum lead-time

**For detailed information, click here:**



**For additional information, please contact at:** [tech-support@abracon.com](mailto:tech-support@abracon.com)