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 Ultra Miniature Ceramic Base SMD Crystal

2.5 x 2.0 x 0.55mm

ABM10AIG

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
- Ultra-miniature size and low profile package: 2.5 x 2.0 x 0.55mm
- 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 SPECIFIC ATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	12.000		62.500	MHz	
Operation Mode		Fundamental			
Operating Temperature	-40		+125	ºC	See options
Storage Temperature	-55		+125	ºC	
Frequency Tolerance @+25°C	-50		+50	ppm	See options
Frequency Stability over the Operating Temperature (ref. to +25°C)	-100		+100	ppm	See options
Equivalent series resistance (R1)			150	Ω	12.000~15.999MHz
			80		16.000~19.999 MHz
			60		20.000~29.999 MHz
			50		30.000~34.999 MHz
			40		35.000~62.500 MHz
Shunt capacitance (C0)			5.0	pF	
Load capacitance (CL)		10		pF	Standard (See options if other than STD)
Drive Level		10	100	µW	
Aging	-3		+3	ppm	@25°C±3°C First year
Insulation Resistance	500			MΩ	@ 100Vdc ± 15V

OPTIONS AND PART IDENTIFICATION:

ABM10AIG - [ ] MHz - [ ] - [ ] - [ ][ ][ ] - [ ]

Frequency in MHz
Please specify the frequency in MHz.
e.g. 14.31818MHz

Load Capacitance (pF)
Blank: 10pF
If not standard, please specify CL in pF or S for series

Custom ESR if other than standard
R□
□: Specify a value in Ω
(e.g.: R80)

Operating Temp.
Blank: -40°C ~ +125°C
D: -40°C ~ +85°C
J: -40°C ~ +105°C

Freq. Tolerance
Blank: ± 50 ppm
4: ± 30 ppm
2: ± 20 ppm
1: ± 10 ppm

Freq. Stability
Blank: ± 100 ppm
Z: ± 50 ppm

Packaging
Blank: Bulk
T3: 3kpcs / reel

2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 12.09.15**
Ph. 949.546.8000 | Fax. 949.546.8001
Visit www.abracon.com for Terms and Conditions of Sale

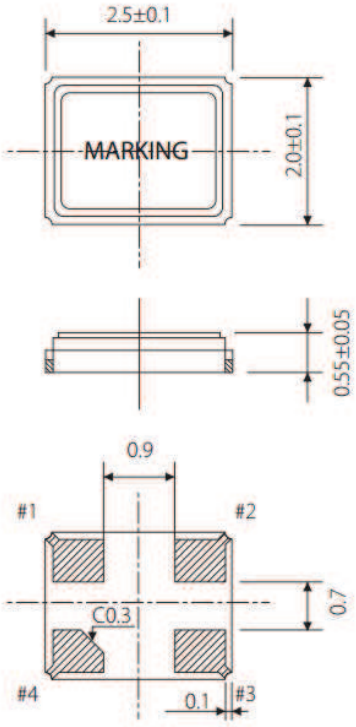
Automotive&Industrial Grade Ultra Miniature Ceramic Base SMD Crystal

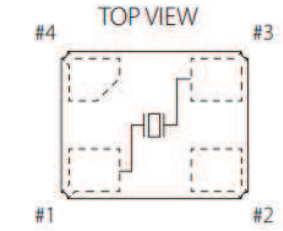
2.5 x 2.0 x 0.55mm

ABM10AIG

Pb RoHS / RoHS II Compliant

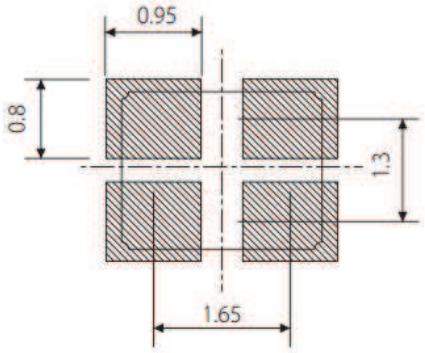
OUTLINE DIMENSIONS:





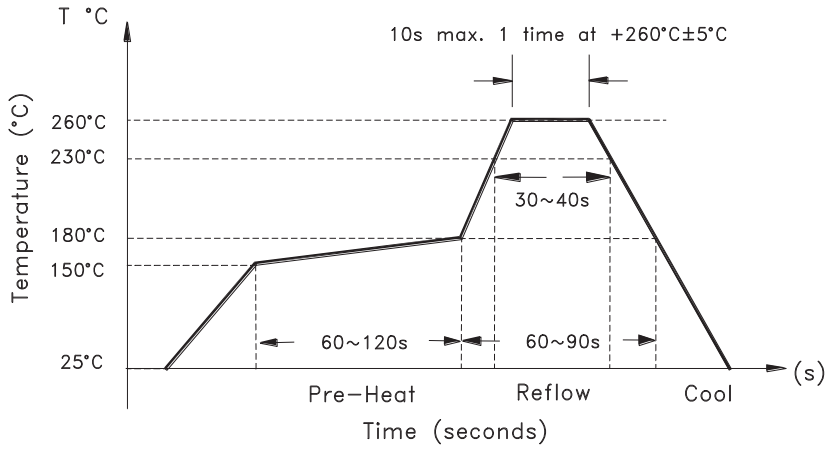
•#1,#3 : Crystal terminal / #2,#4 : Connected to cover
(Please connect it with GND.)

Recommended Land Pattern



Dimensions: mm

REFLOW PROFILE:



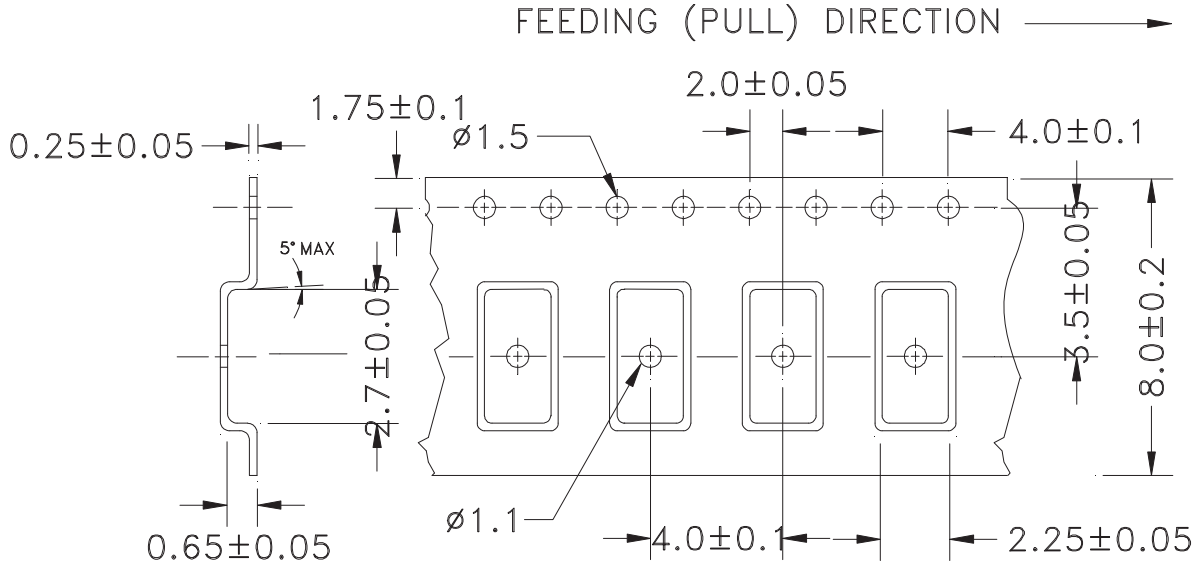
ABM10AIG

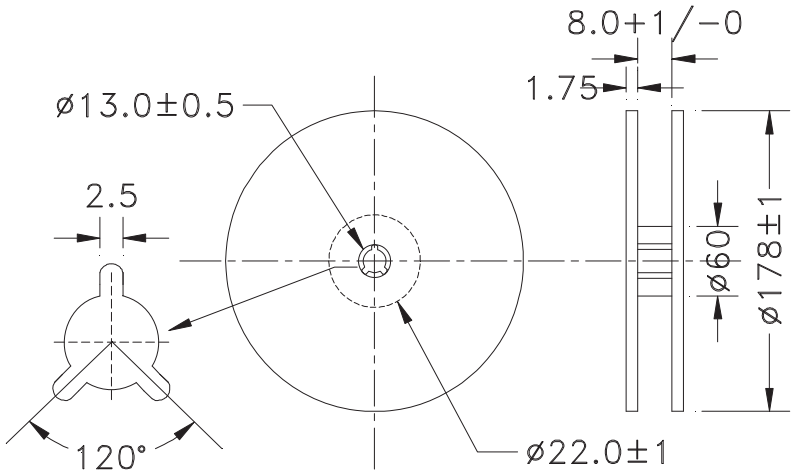
RoHS / RoHS II Compliant

2.5 x 2.0 x 0.55mm

TAPE & REEL:

Option T3: 3,000pcs/reel





Dimensions: mm

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

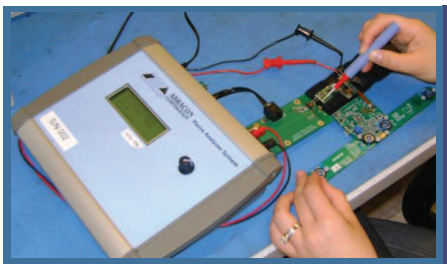
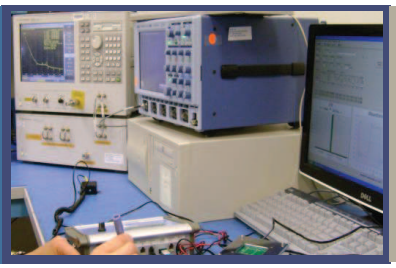
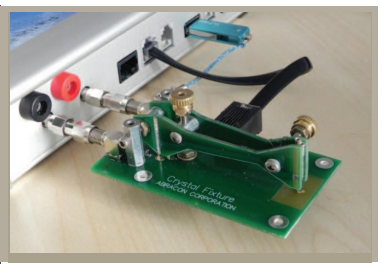
Deliverables: A detail Report encompassing:

- ***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 µcontroller/processor implemented

Ordering information:

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

For detailed information, click here:

For additional information, please contact at: tech-support@abracon.com

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