

# 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

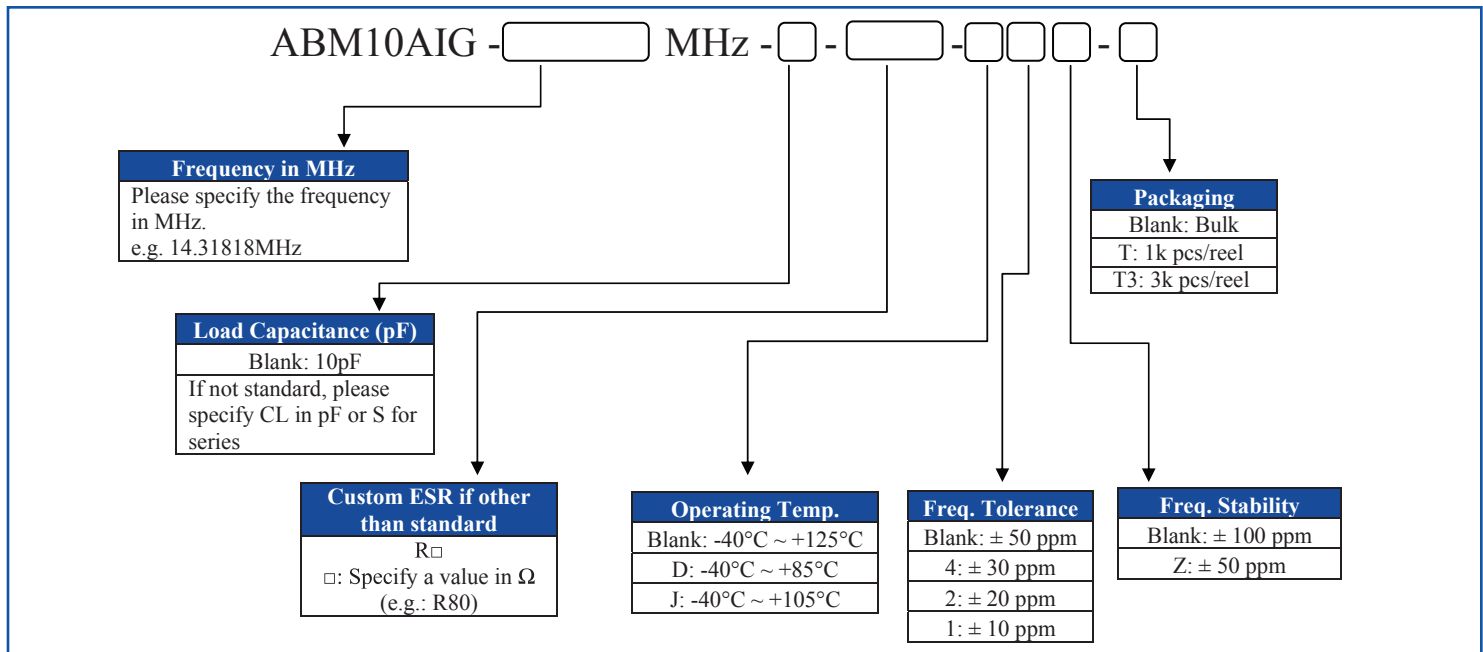
➤ **APPLICATIONS:**

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

➤ **STANDARD SPECIFICATIONS:**

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	12.000		62.500	MHz	
Operation Mode	Fundamental				
Operating Temperature	-40		+125	°C	See options
Storage Temperature	-55		+125	°C	
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:**



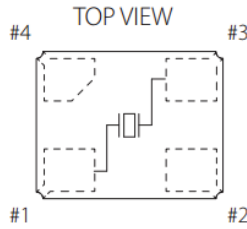
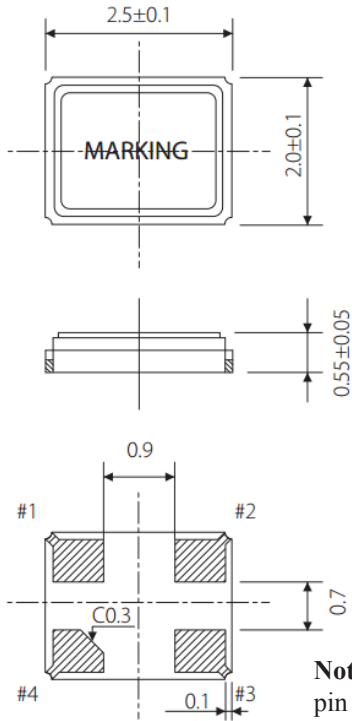


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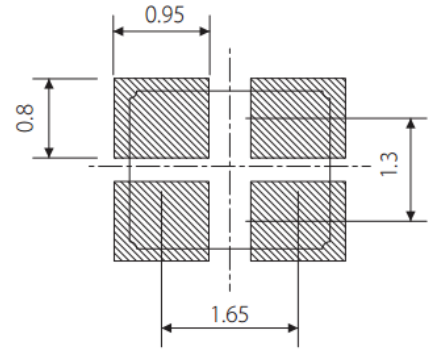
**Pb** | **RoHS / RoHS II Compliant**

## OUTLINE DIMENSIONS:



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

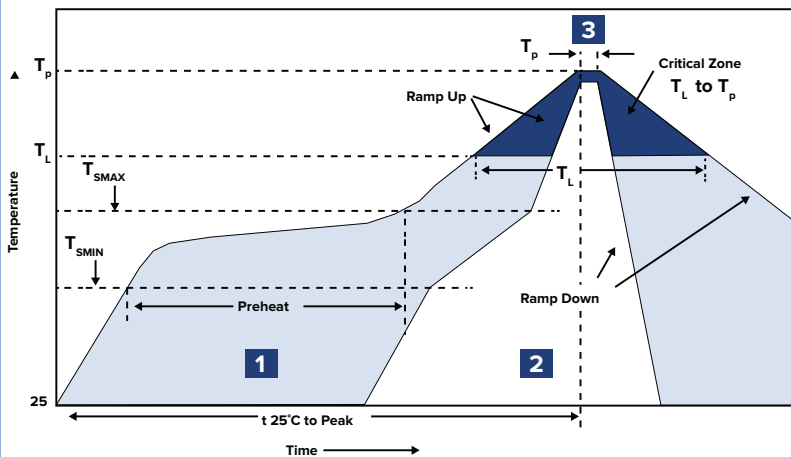
## Recommended Land Pattern



**Note:** Due to availability of raw materials, this part may be manufactured with the chamfer on pin 1 or pin 4. Be advised that this does not affect the electrical characteristics of the crystal in any way.

Dimensions: mm

## REFLOW PROFILE:



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 180°C	60 ~ 120 sec.
2	Reflow	$T_L$ 230°C	30 ~ 40 sec.
3	Peak heat	$T_P$ 260°C±5°C	10 sec. MAX



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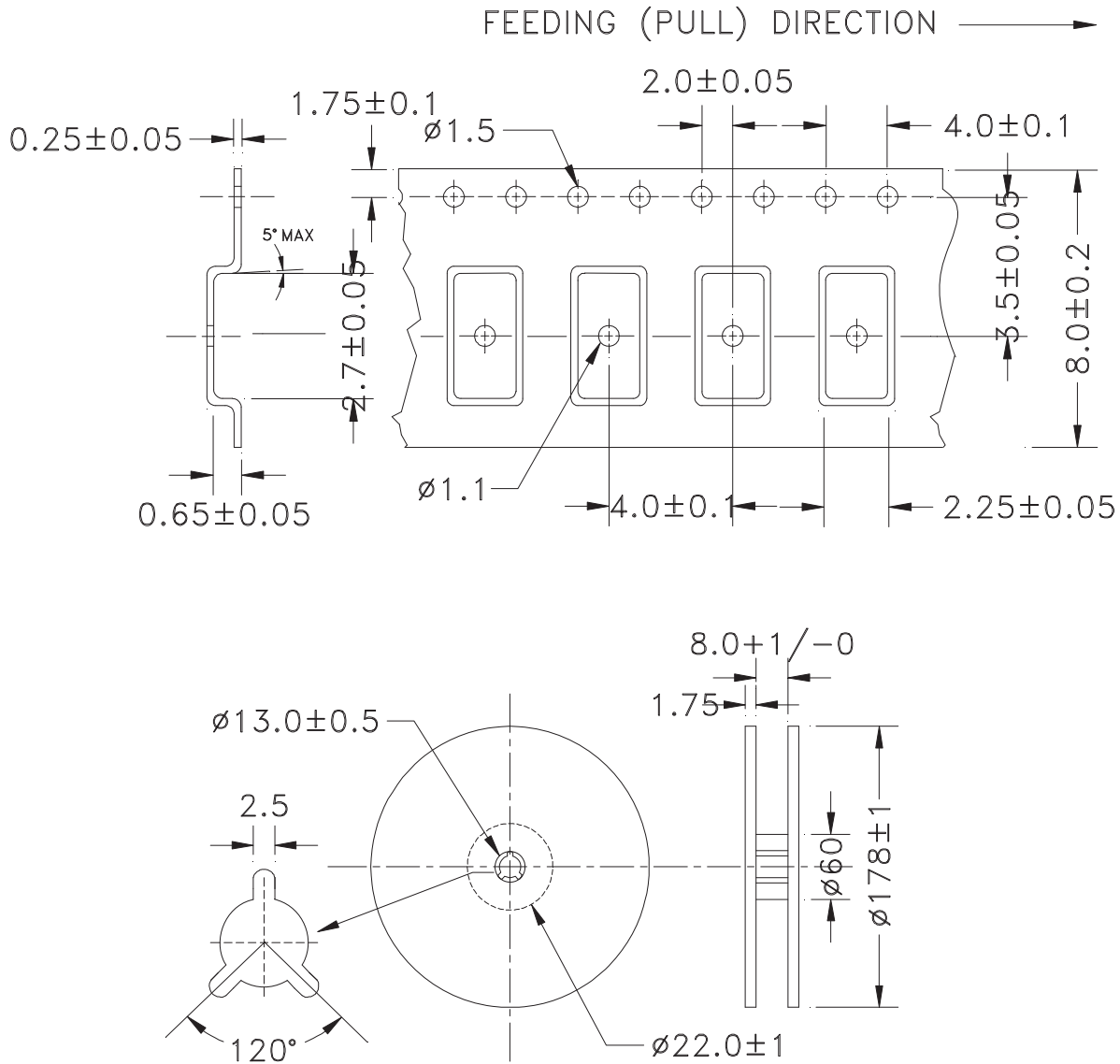
**Pb** | **RoHS / RoHS II Compliant**

➤ **TAPE & REEL:**

**Packaging:**

**T: 1,000pcs/reel**

**T3: 3,000pcs/reel**



Dimensions: mm

**ATTENTION:** Abracon LLC'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-dependent 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 LLC is required. Please contact Abracon LLC for more information.