

# CERAMIC SMD MICRO MINIATURE MICROPROCESSOR CRYSTAL

**ABM7**Pb in Glass  
(exempt per RoHS 2002/95/EC Annex (5))**RoHS**  
Compliant

6.0 x 3.5 x 1.4mm

## FEATURES:

- Low in height (1.4 mm max.)
- Ceramic package assures high reliability
- Small size SMD, suitable for high density applications
- Superior heat-resistant glass sealing
- Wide operating temperature available

## APPLICATIONS:

- Computers, Modems, Communication equipment
- Thin equipment
- Industrial wide temperature applications

## STANDARD SPECIFICATIONS:

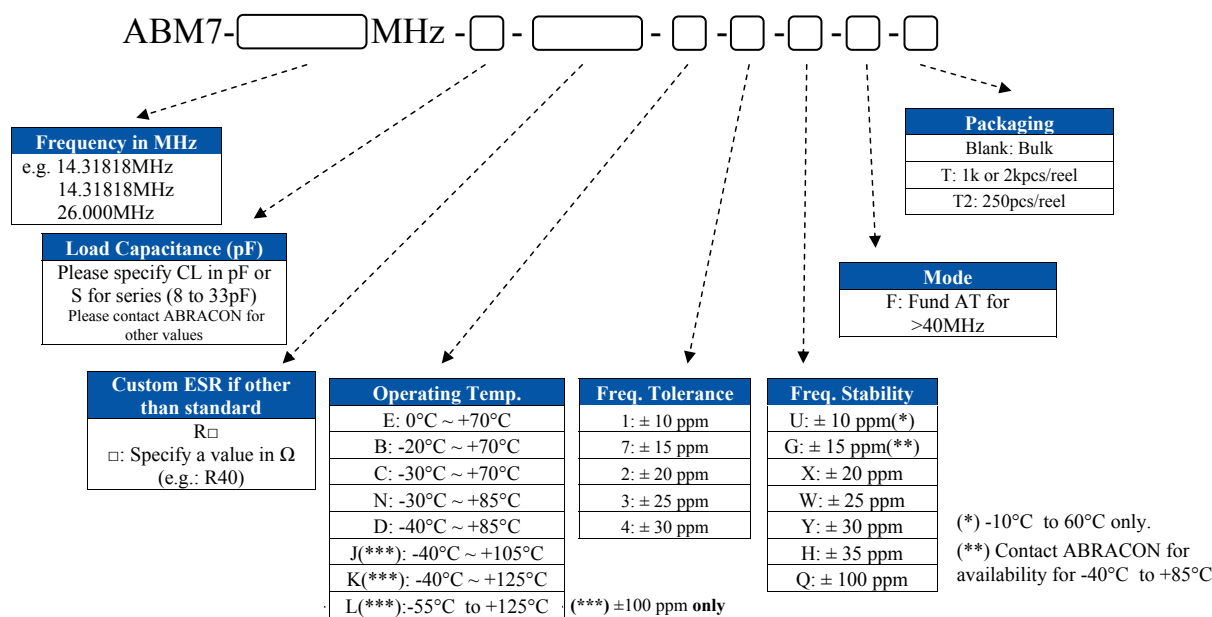
| Parameters                                                          | Minimum           | Typical | Maximum    | Units | Notes                                |
|---------------------------------------------------------------------|-------------------|---------|------------|-------|--------------------------------------|
| Frequency Range                                                     | 8.000             | -----   | 50.000 (*) | MHz   | Fundamental                          |
| Operation mode                                                      | 8.000             | -----   | 39.999999  |       | Fundamental AT-cut (Standard)        |
|                                                                     | 40.000            | -----   | 80.000     |       | 3 <sup>rd</sup> OT AT-cut (Standard) |
|                                                                     | 40.000            | -----   | 50.000     |       | Fundamental AT-cut (See options)     |
| Operating Temperature                                               | -10               | -----   | +60        | °C    | See options                          |
| Storage Temperature                                                 | -40               | -----   | +90        | °C    |                                      |
| Frequency Tolerance @+25°C                                          | -50               | -----   | +50        | ppm   | See options                          |
| Frequency Stability over the Operating Temperature ( ref. to +25°C) | -50               | -----   | +50        | ppm   | See options                          |
| Equivalent series resistance                                        | See table 1 below |         |            | Ω     | -----                                |
| Shunt capacitance (C0)                                              | -----             | -----   | 7          | pF    | -----                                |
| Load capacitance (CL)                                               | -----             | 18      | -----      | pF    | See options                          |
| Drive Level                                                         | -----             | 10      | 100        | μW    |                                      |
| Aging@25°C±3°C                                                      | -----             | -----   | ±5         | ppm   | First year                           |
| Insulation Resistance                                               | 500               | -----   | -----      | MΩ    | @ 100Vdc                             |

(\*) Frequency above 40MHz based on availability.  
Please contact ABRACON

**Table 1**

| Frequency (MHz) | ESR(Ω) max. | Operation Mode           |
|-----------------|-------------|--------------------------|
| 8.000 – 9.999   | 100         | Fundamental              |
| 10.000 – 15.999 | 60          | Fundamental              |
| 16.000 – 50.000 | 50          | Fundamental              |
| 40.000 – 80.000 | 70          | 3 <sup>rd</sup> Overtone |

## OPTIONS AND PART IDENTIFICATION: (left blank if standard)



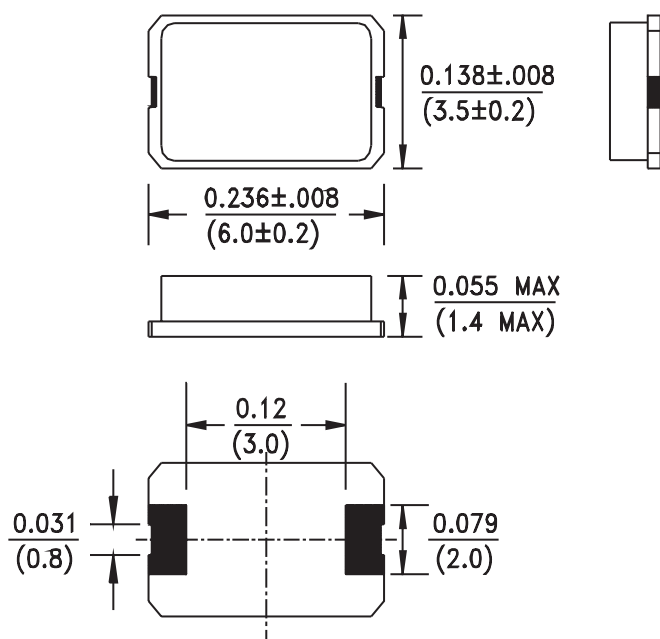
# CERAMIC SMD MICRO MINIATURE MICROPROCESSOR CRYSTAL

ABM7



6.0 x 3.5 x 1.4mm

## OUTLINE DRAWING:

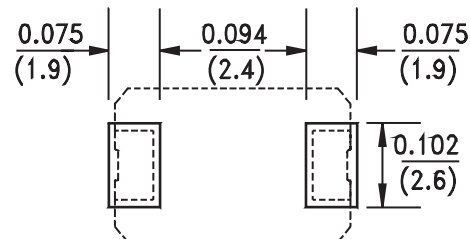


Note: Due to the availability of raw materials, this part may be manufactured with the chamfer on pin 1. Be advised that this does not affect the electrical characteristics of the crystal in any way.

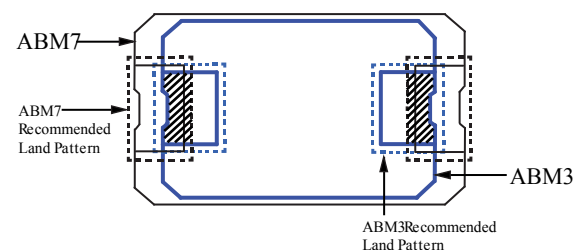
### CONNECTION



### Recommended land pattern



### Land pattern compatibility between ABM3 and ABM7

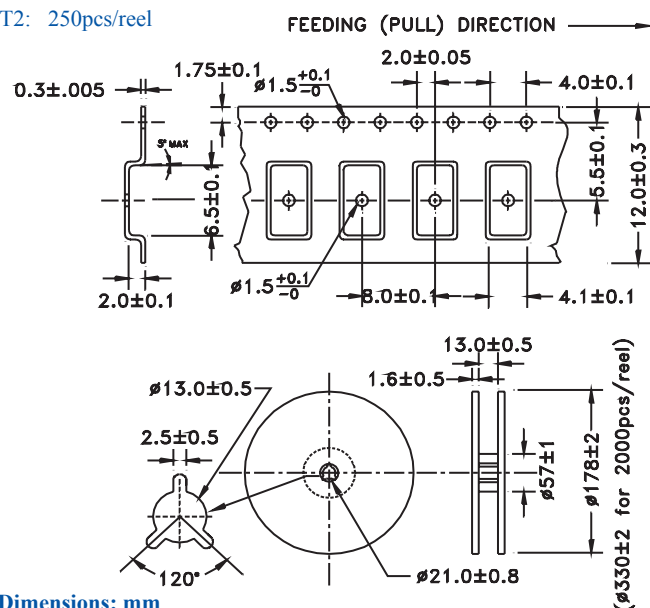


Dimensions: inch (mm)

## TAPE & REEL:

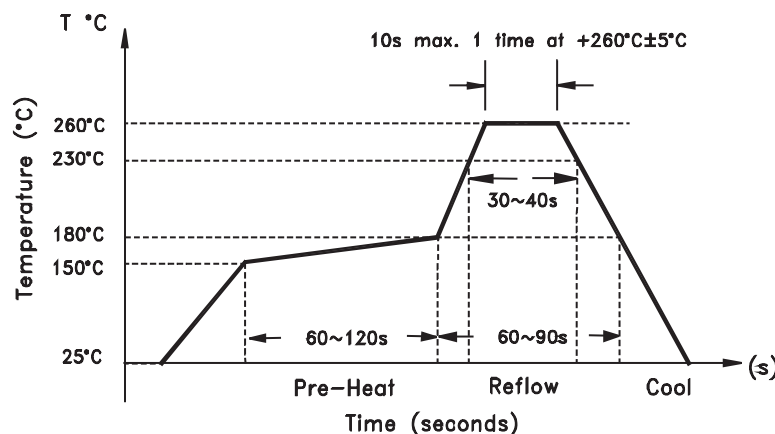
T: 1000pcs/reel or 2000pcs/reel

T2: 250pcs/reel



Dimensions: mm

## REFLOW PROFILE:



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