

# ULTRA MINIATURE CERAMIC SMD CRYSTAL

**ABM8**

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



**RoHS**  
Compliant



3.2 x 2.5 x 0.8mm

## FEATURES:

- Low in height; suitable for thin equipment, 0.8mm max
- Seam sealed package assures high reliability
- Tight tolerance and stability available
- Suitable for RoHS reflow
- Available for fundamental and 3rd over tone mode

## APPLICATIONS:

- High density applications
- Modems, communication and test equipment
- PMCIA, Wireless applications

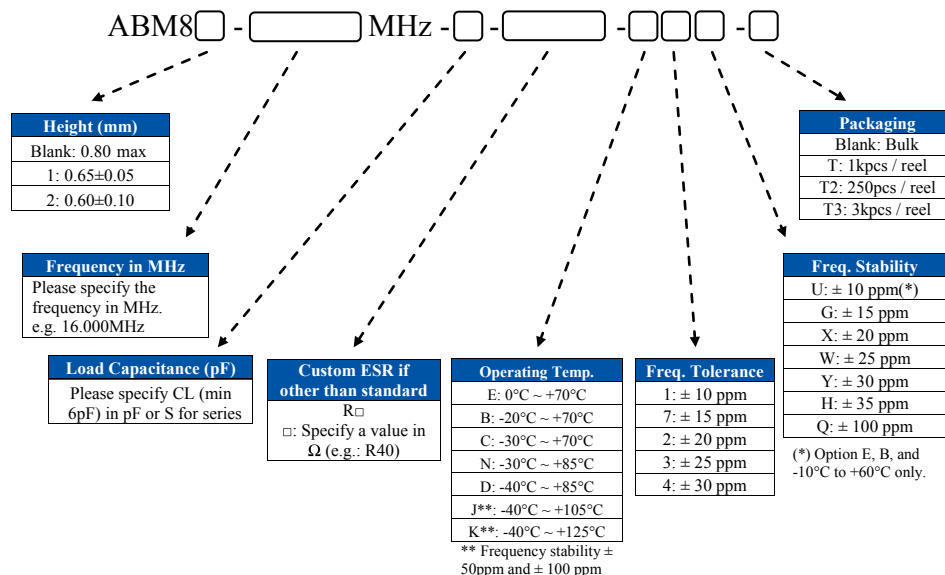
## STANDARD SPECIFICATIONS:

| Parameters                                                          | Minimum                                                                              | Typical | Maximum  | Units | Notes                                                                        |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------|----------|-------|------------------------------------------------------------------------------|
| Frequency Range                                                     | 10.000                                                                               | -----   | 125.000* | MHz   | Contact Abracon for available F<11MHz                                        |
| Operation Mode                                                      | Fundamental                                                                          |         |          | ----- | 10MHz - 54MHz                                                                |
|                                                                     | 3rd Overtone<br>(Standard Frequencies: 64, 66, 66.6666, 75, 80, 98.304, 100, 125MHz) |         |          | ----- | 64.000 MHz - 125.000 MHz<br>Please contact Abracon for available frequencies |
| Operating Temperature                                               | -10                                                                                  | -----   | +60      | °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) | -50                                                                                  | -----   | +50      | ppm   | See options                                                                  |
| Equivalent series resistance (R1)                                   | See table 1 below                                                                    |         |          | Ω     |                                                                              |
| Shunt capacitance (C0)                                              | -----                                                                                | -----   | 7.0      | pF    |                                                                              |
| Load capacitance (CL)                                               | -----                                                                                | 18.0    | -----    | pF    | Standard (See options if other than STD)                                     |
| Drive Level                                                         | -----                                                                                | 10      | 100      | μW    |                                                                              |
| Aging                                                               | -3                                                                                   | -----   | +3       | ppm   | @25°C±3°C<br>First year                                                      |
| Insulation Resistance                                               | 500                                                                                  | -----   | -----    | MΩ    | @ 100Vdc ± 15V                                                               |

TABLE 1- Standard ESR

| Frequency (MHz)        | ESR(Ω)<br>max | Frequency (MHz)           | ESR(Ω)<br>max |
|------------------------|---------------|---------------------------|---------------|
| 10.000 -11.999 (Fund)  | 200           | 30.000 - 39.999 (Fund)    | 40            |
| 12.000 -15.999 (Fund)  | 120           | 40.000 - 54.000 (Fund)    | 35            |
| 16.000 -19.999 (Fund)  | 70            | 66.000 - 80.000 (3rd OT)  | 120           |
| 20.000 - 29.999 (Fund) | 50            | 98.304 - 125.000 (3rd OT) | 80            |

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



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RoHS  
Compliant



3.2 x 2.5 x 0.8mm

## OUTLINE DRAWING:

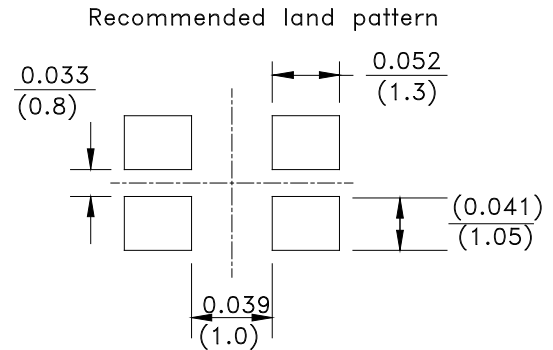
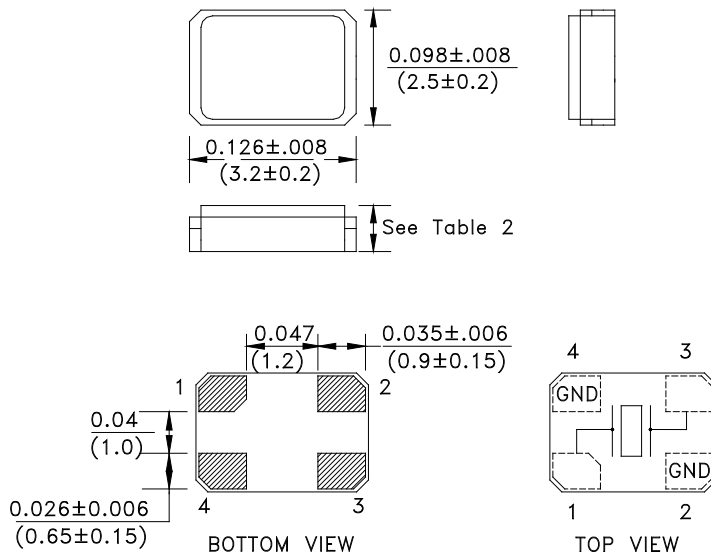


Table 2

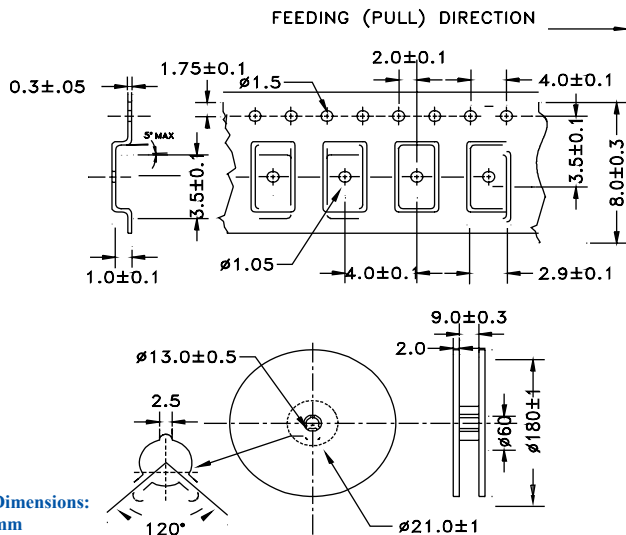
| Height (mm) |             |
|-------------|-------------|
| ABM8        | 0.80 max    |
| ABM81       | 0.65+/-0.05 |
| ABM82       | 0.60+/-0.10 |

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

Dimensions: inch (mm)

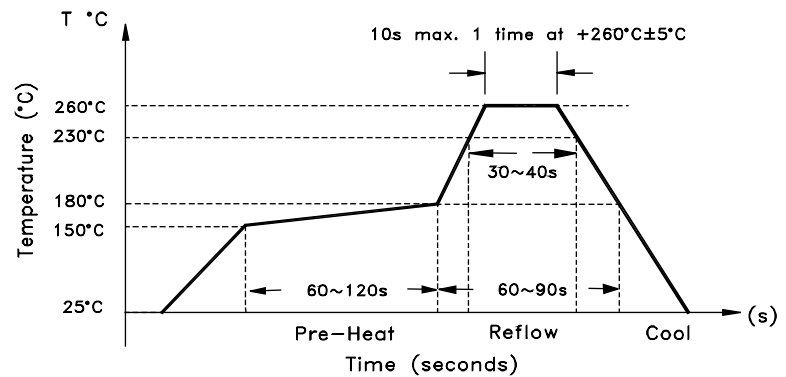
## TAPE & REEL:

- Option "-T" : Tape and reel (1,000pcs/reel) : ABM8, ABM82  
Tape and reel (3,000pcs/reel) : ABM81
- Option "-T2" : Tape and reel (250pcspcs/reel) : ABM8
- Option "-T3" : Tape and reel (3,000pcs/reel) : ABM8, ABM82 only



Dimensions:  
mm

## REFLOW PROFILE:



Need a test socket for the ABM8 Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here](#).

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# Mouser Electronics

Authorized Distributor

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