

# 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

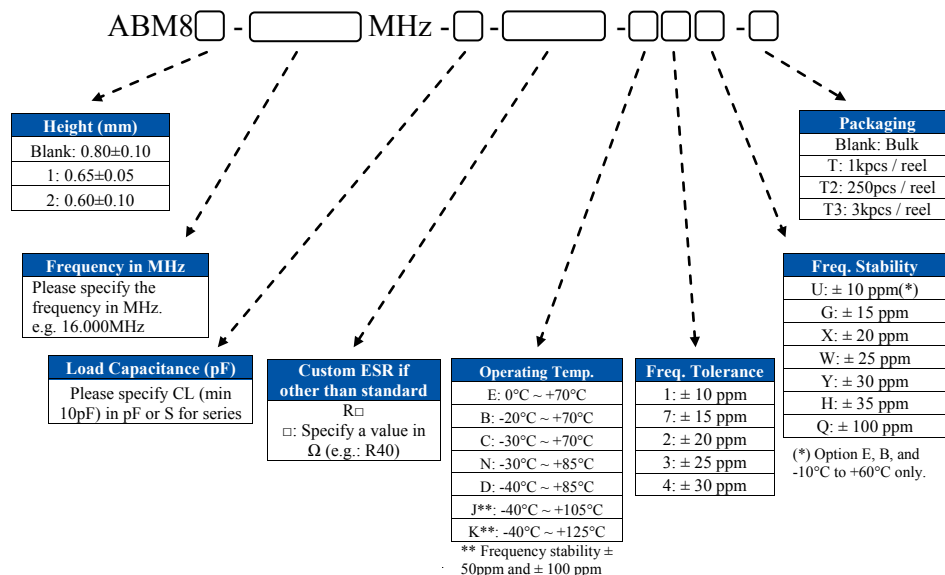
## STANDARD SPECIFICATIONS:

| 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) max | Frequency (MHz)           | ESR(Ω) 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)



ABRACON IS  
ISO9001:2008  
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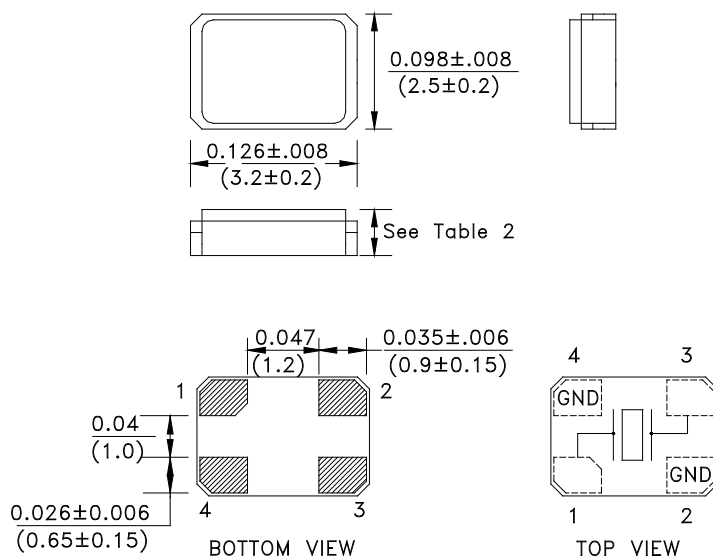


RoHS  
Compliant



3.2 x 2.5 x 0.8mm

## OUTLINE DRAWING:



Recommended land pattern

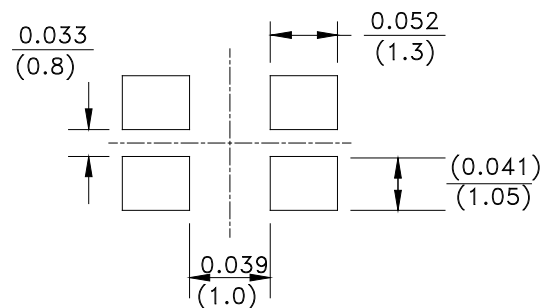


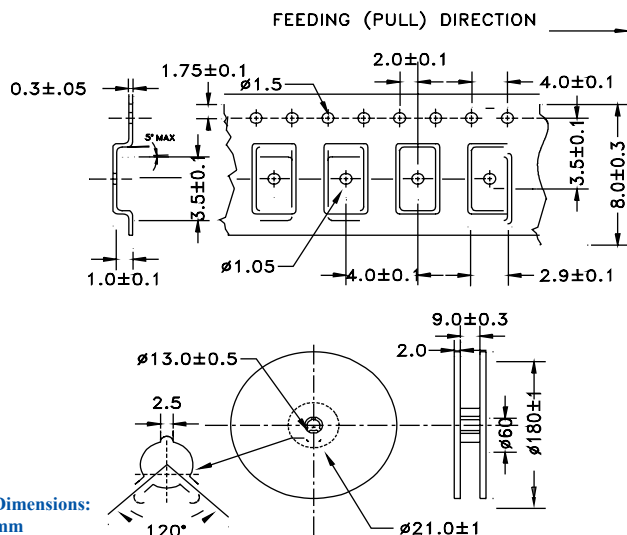
Table 2

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

Dimensions: inch (mm)

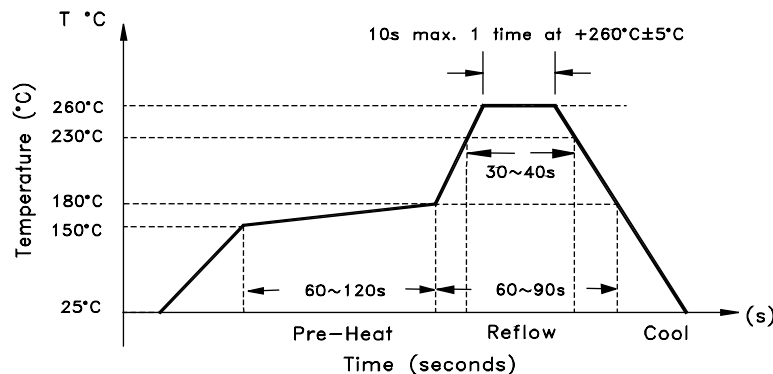
## TAPE & REEL:

- 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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