# ULTRA MINIATURE CERAMIC SMD CRYSTAL


3.2 x 2.5 x 0.8mm

## ABM8

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

Pb RoHS Compliant

## 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 (Standard Frequencies: 64, 66, 66.6666, 75, 80, 98.304, 100, 125MHz) | | | ----- | 64.000 MHz - 125.000 MHz Please contact Abracon for available frequencies |
| Operating Temperature | -10 | ----- | +60 | 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) | -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 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)

ABM8☐ - ☐☐☐☐☐ MHz - ☐ - ☐☐☐☐☐ - ☐☐☐ - ☐

**Height (mm)**
- Blank: 0.80±0.10
- 1: 0.65±0.05
- 2: 0.60±0.10

**Frequency in MHz**
Please specify the frequency in MHz. e.g. 16.000MHz

**Load Capacitance (pF)**
Please specify CL (min 10pF) in pF or S for series

**Custom ESR if other than standard**
R☐
☐: Specify a value in Ω (e.g.: R40)

**Operating Temp.**
- E: 0°C ~ +70°C
- B: -20°C ~ +70°C
- C: -30°C ~ +70°C
- N: -30°C ~ +85°C
- D: -40°C ~ +85°C
- J**: -40°C ~ +105°C
- K**: -40°C ~ +125°C

** Frequency stability ± 50ppm and ± 100 ppm

**Freq. Tolerance**
- 1: ± 10 ppm
- 7: ± 15 ppm
- 2: ± 20 ppm
- 3: ± 25 ppm
- 4: ± 30 ppm

**Freq. Stability**
- U: ± 10 ppm(*)
- G: ± 15 ppm
- X: ± 20 ppm
- W: ± 25 ppm
- Y: ± 30 ppm
- H: ± 35 ppm
- Q: ± 100 ppm

(*) Option E, B, and -10°C to +60°C only.

**Packaging**
- Blank: Bulk
- T: 1kpcs / reel
- T2: 250pcs / reel
- T3: 3kpcs / reel




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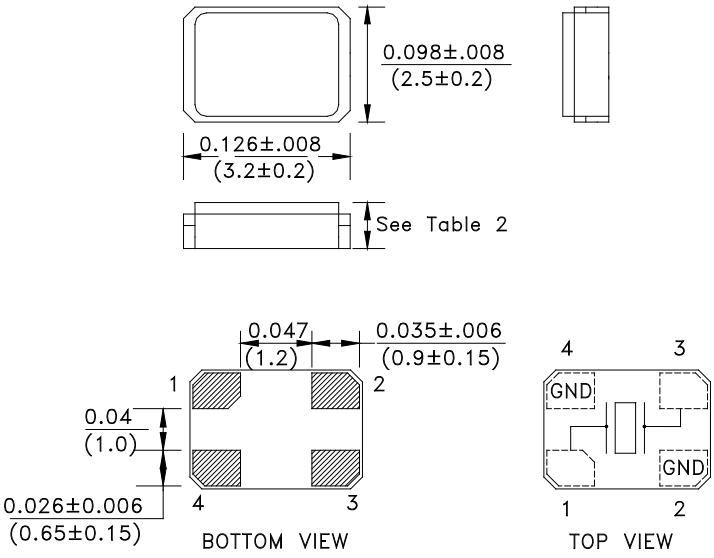
## ABM8

RoHS Compliant

3.2 x 2.5 x 0.8mm

## OUTLINE DRAWING:



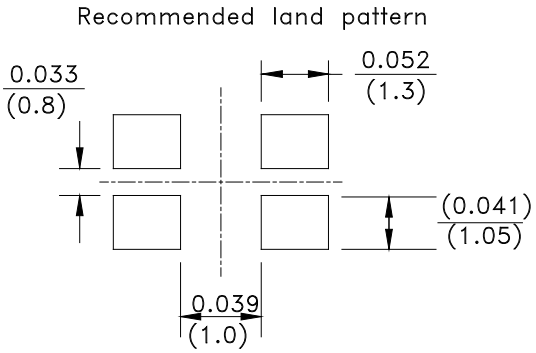




**Table 2**

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

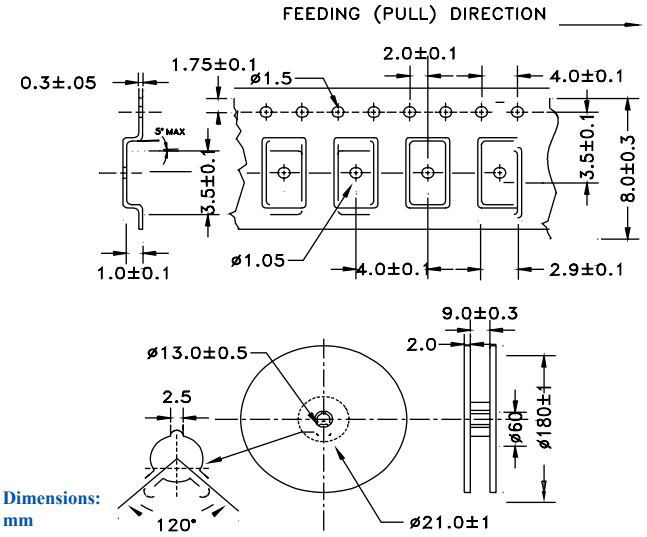
Dimensions: inch (mm)

## TAPE & REEL:

**Option "-T" : Tape and reel (1,000pcs/reel) : ABM8, ABM82**
**Tape and reel (3,000pcs/reel) : ABM81**

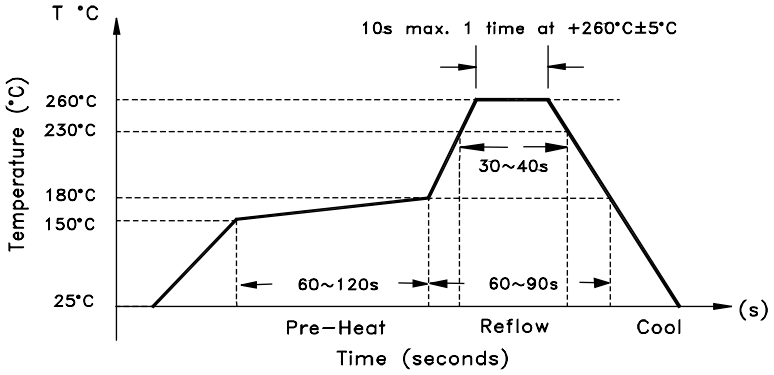
**Option "-T2" : Tape and reel (250pcspcs/reel) : ABM8**

**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.**