

# CERAMIC SURFACE MOUNT MICROPROCESSOR CRYSTAL



7.0 x 5.0 x 1.3 mm

ABMM



RoHS  
Compliant

## FEATURES:

- Suitable for RoHS reflow
- Low height 1.3 mm max
- AT-strip cut offers a tight tolerance & stability

## APPLICATIONS:

- Computers, Modems, Microprocessors
- Communication, Test equipment
- PCMCIA

## STANDARD SPECIFICATIONS:

| PARAMETERS  |   |
|---|---|
| ABRACON P/N   | ABMM  |
| Frequency Range   | 6.0 MHz to 125 MHz  |
| Operation Mode  | AT-cut<br>6.0 MHz ~ 33.0 MHz (Fundamental: Standard)<br>33.01 MHz - 125 MHz (Third-Overtone: Standard)<br>33.01 MHz ~ 50.0 MHz (Fundamental: Please specify. See options) |
| Operating Temperature                                       | - 10°C to + 60°C (see options)  |
| Storage Temperature   | - 40°C to + 85°C  |
| Frequency Tolerance at +25°C                                | ± 50 ppm max. (see options)   |
| Frequency Stability over the Operating Temp. (Ref to +25°C) | ± 50 ppm max. (see options)   |
| Equivalent Series Resistance                                | See Table 1   |
| Shunt Capacitance C <sub>0</sub>                            | 7pF max.  |
| Load Capacitance C <sub>L</sub>                             | 18pF (see options)  |
| Drive Level   | 500µW max., 100µW typical   |
| Aging at 25°C (first year)                                  | ± 5ppm max.   |
| Insulation Resistance                                       | 500MΩ min at 100Vdc ± 15V   |

TABLE 1: STANDARD ESR

| Frequency (MHz)       | ESR (Ω) Max | Frequency (MHz)          | ESR (Ω) Max |
|-----------------------|-------------|--------------------------|-------------|
| 6.000 - 11.999(Fund)  | 70          | 20.000 - 50.000(Fund)    | 40          |
| 12.000 - 20.000(Fund) | 50          | 33.000 - 125.00(3rd O/T) | 80          |

## OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ABMM - [ ] MHz - [ ] - R [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

**Frequency in MHz**  
e.g. 6.000MHz  
14.31818MHz  
26.000MHz

**Load Capacitance**  
Please specify CL (8 to 33pF) in pF or S for Series  
Please contact ABRACON for other values

**ESR if other than STD**  
Specify a value in Ω

**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

**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

**Packaging**  
Blank: Bulk  
T: Tape & Reel (1k)  
T2: Tape & Reel (250)

**Mode**  
F: Fund.AT for >33MHz

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

# CERAMIC SURFACE MOUNT MICROPROCESSOR CRYSTAL

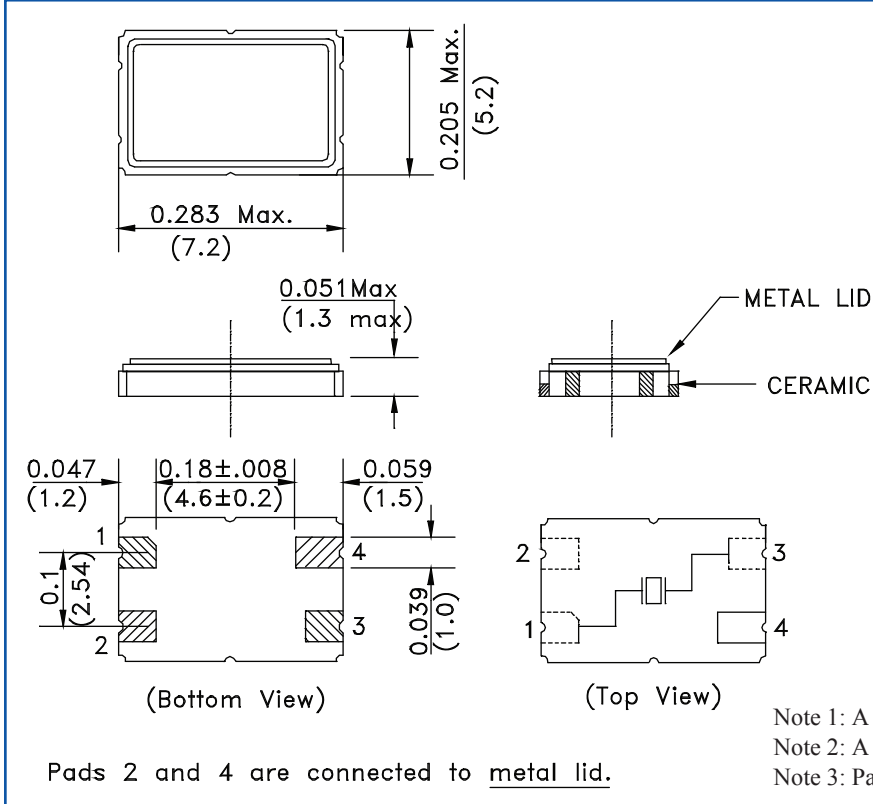


7.0 x 5.0 x 1.3 mm

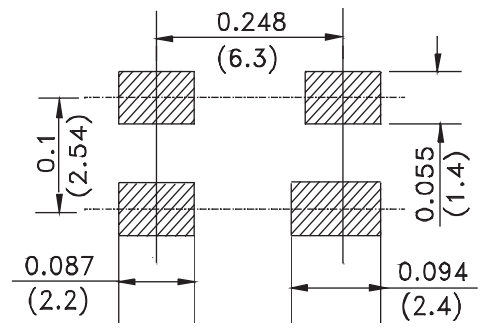
**ABMM**



## OUTLINE DRAWING:



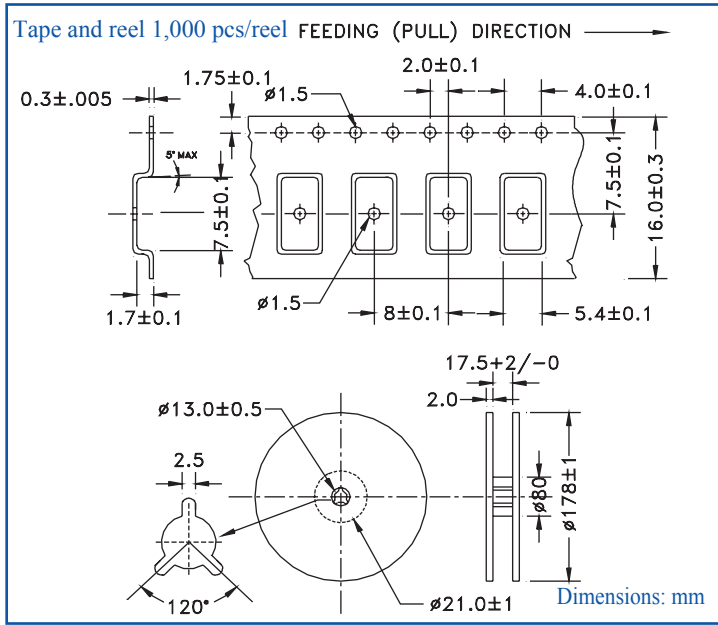
## Recommended Land Pattern



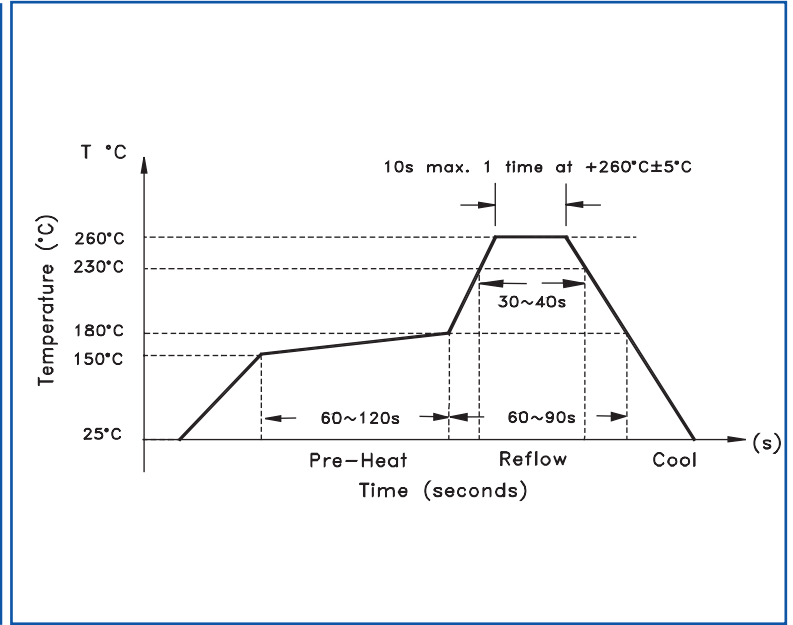
Dimension : Inches (mm)

- Note 1: A longer pad (1.5mm) may appear on either pad 2, 3, or 4.
- Note 2: A chamfer of 0.3mm may appear on pad 1 or 2.
- Note 3: Pads 2 and 4 are connected to the metal lid.

## TAPE & REEL:



## REFLOW PROFILE:



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

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