# CERAMIC SURFACE MOUNT MICROPROCESSOR CRYSTAL

ABMM

7.0 x 5.0 x 1.3 mm

Pb RoHS Compliant

## FEATURES:

- Suitable for reflow
- Low in height - suitable for thin equipment
- 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 (see option)<br>Fundamental 6.0 MHz - 33.0 MHz<br>Third-Overtone for F ~ 33.01 MHz - 125 MHz |
| 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 Table 1); ± 100 ppm @ -10 °C to + 60° C for Fundamental BT |
| Equivalent Series Resistance | See Table 1 |
| Shunt Capacitance $C_0$ | 7pF max. |
| Load Capacitance $C_L$ | 18pF (see options) |
| Drive Level | 500µW max., 100µW typical |
| Aging at 25°C Per Year | ± 5ppm max. |
| Insulation Resistance | 500MW min at 100Vdc ± 15V |

TABLE 1

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

## OPTIONS & PART IDENTIFICATION:

[Left blank if standard]

**ABMM - Frequency - □ - R□□□- □ - □ - □ - □ - □**

| Frequency |
|---|
| XX.XXXX MHz |

| Load Capacitance |
|---|
| Please specify CL in pF or S for Series |

| Custom ESR |
|---|
| RXXX (Value in Ω) If it is custom |

| 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 max. |
| 7 | ± 15 ppm max. |
| 2 | ± 20 ppm max. |
| 3 | ± 25 ppm max. |
| 4 | ± 30 ppm max. |

| Freq. Stability | |
|---|---|
| U** | ± 10 ppm max. |
| G*** | ± 15 ppm max. |
| X | ± 20 ppm max. |
| W | ± 25 ppm max. |
| Y | ± 30 ppm max. |
| H | ± 35 ppm max. |

** -10°C TO 60°C only

*** Temp option E and B only

| Packaging | |
|---|---|
| Blank | Bulk |
| T | Tape & Reel |

| Mode | |
|---|---|
| F | Fund.AT>=33MHz |
| FB | Fund BT* |

(*) Note: ±100ppm max stability from -10ºC to +60ºC only.



30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

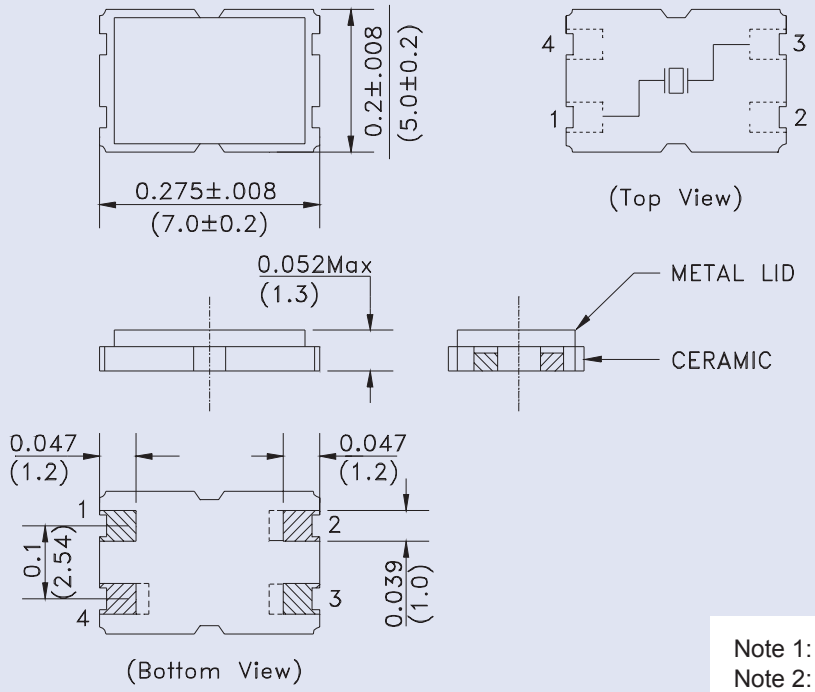
# CERAMIC SURFACE MOUNT MICROPROCESSOR CRYSTAL

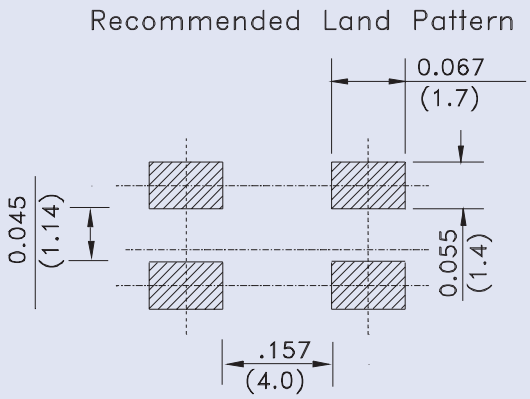
ABMM

7.0 x 5.0 x 1.3 mm

Pb RoHS Compliant

## OUTLINE DRAWING:

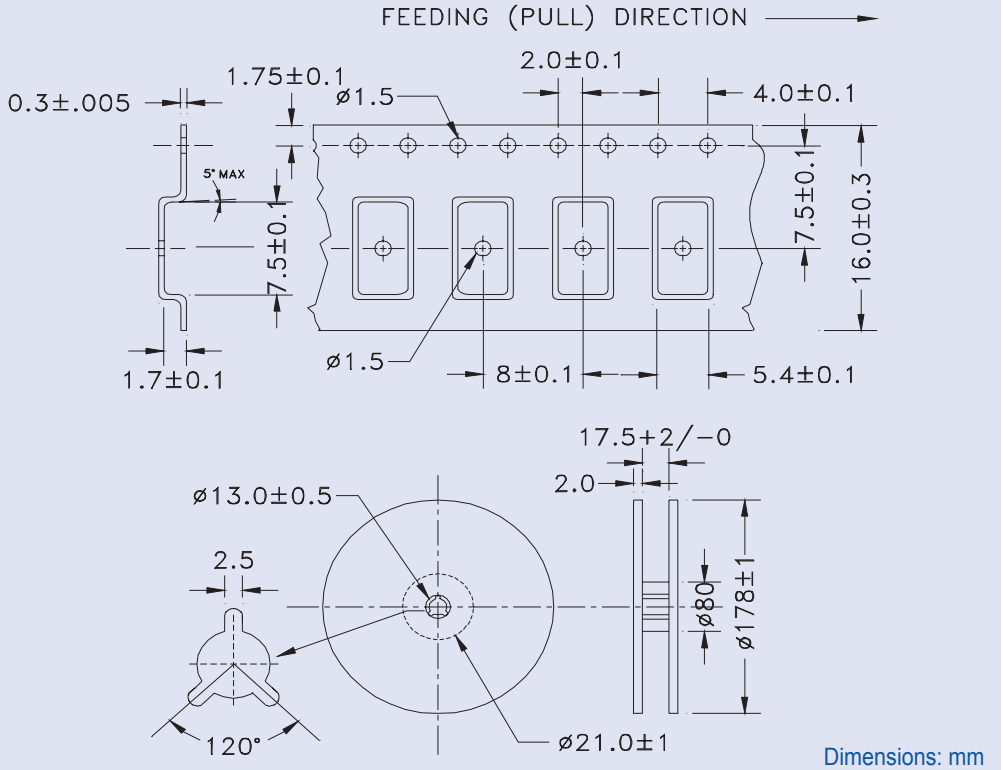



Dimensions: mm

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: Tape and reel 1,000 pcs/reel




Dimensions: mm


30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com