



**THE DATASHEET OF
ABMM-13.000MHZ-T**



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 6.0 MHz ~ 33.0 MHz (Fundamental: Standard) 33.01 MHz - 125 MHz (Third-Overtone: Standard) 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 ₀	7pF max.
Load Capacitance C _L	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

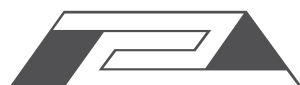
Freq. Stability
U: ± 10 ppm (*)
G: ± 15 ppm (**)
X: ± 20 ppm
W: ± 25 ppm
Y: ± 30 ppm
H: ± 35 ppm

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.

ABRACON IS
ISO9001:2008
CERTIFIED



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CORPORATION

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Revised: 02.26.12

CERAMIC SURFACE MOUNT MICROPROCESSOR CRYSTAL

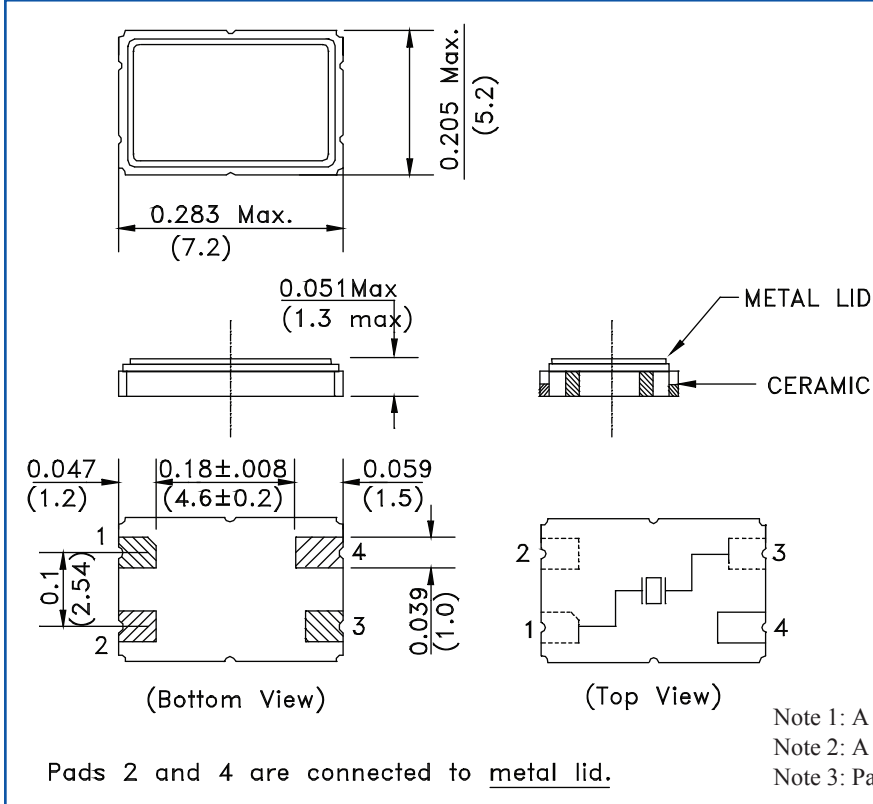


7.0 x 5.0 x 1.3 mm

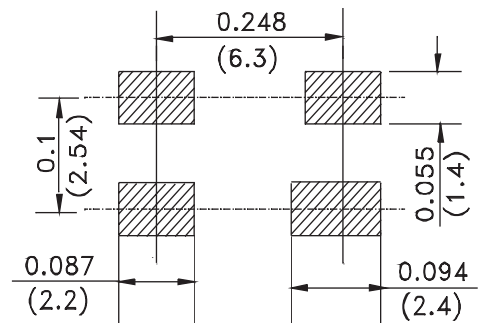
ABMM



OUTLINE DRAWING:



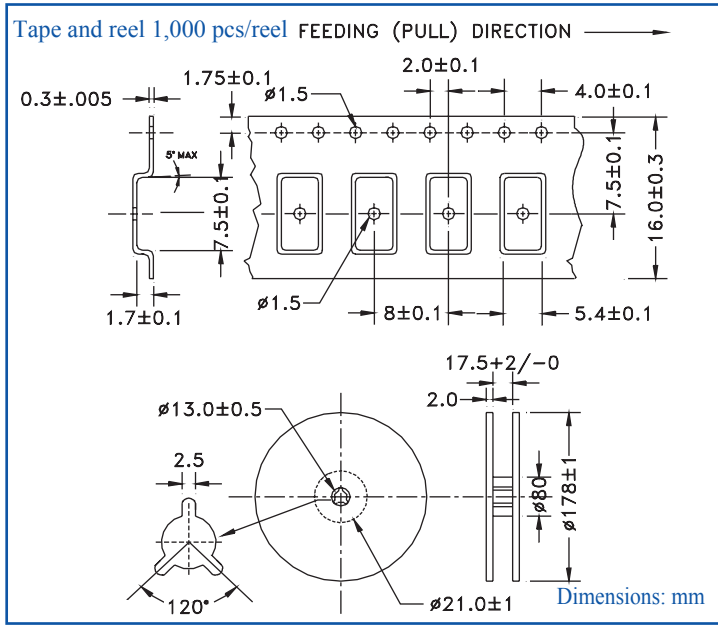
Recommended Land Pattern



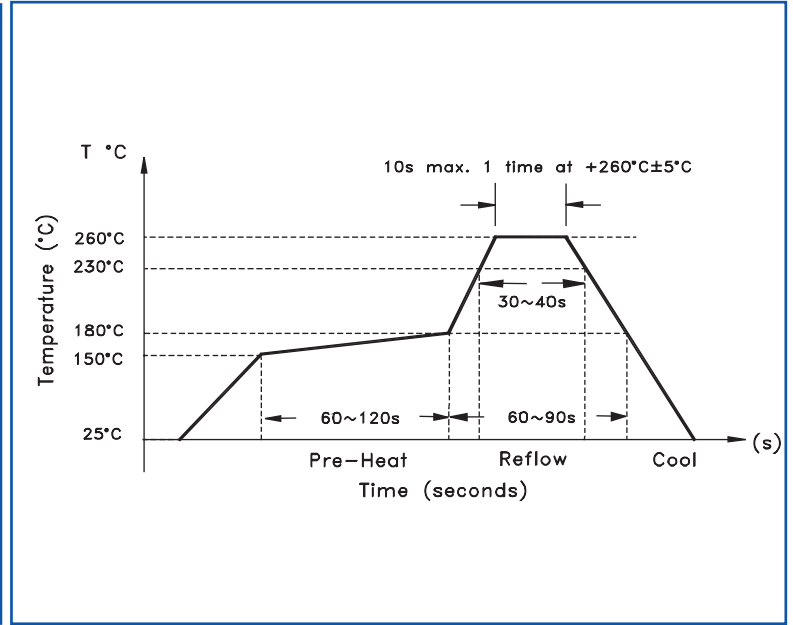
Dimension : Inches (mm)

- 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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