

# SMD MICROPROCESSOR CRYSTAL



ABMC2

11.0 x 5.0 x 2.0 mm

ABMC2



RoHS  
Compliant

## FEATURES:

- 2.0 mm height
- Hermetically sealed package offers high reliability.
- AT cut offers tighter stability
- Resistance welded
- Extended temperature available
- Low frequency in SMD package
- IR Reflow capable

## APPLICATIONS:

- PCMCIA applications
- Microprocessors
- Communication equipment, Networking, Thin equipment

## STANDARD SPECIFICATIONS:

ABRACON P/N:	ABMC2 Series
Frequency:	3.579545 MHz to 70 MHz
Operation mode:	AT-strip or BT-strip 3.5 MHz - 32.00 MHz (Fundamental AT-cut: Standard) 32.00 MHz - 70.00 MHz (3rd OT AT-cut: Standard) 32.00 MHz - 41.00 MHz (Fundamental AT-cut: See options) 22.00 MHz - 46.00 MHz (Fundamental BT-cut: See options)
Operating temperature:	- 10°C to + 60°C (see options)
Storage temperature:	- 40°C to + 85° C
Frequency tolerance:	± 50 ppm max. (see options)
Frequency stability over the operating temperature (Ref to +25° C):	± 100 ppm max. (see options) ± 100 ppm max. over - 40°C to + 85° C only for BT-cut
Equivalent series resistance (max.):	See Table 1
Shunt capacitance C0:	7.0pF max.
Load capacitance CL:	18.0pF (see option)
Drive level:	100 μW max.
Aging (per year) @ 25° C:	± 5 ppm max.
Insulation resistance:	500 MΩ min. at 100 Vdc ± 15 Vdc

Table 1 Standard ESR

Frequency (MHz)	ESR(Ω) max.
3.500 - 3.999 (AT cut fund.)	180
4.000 - 4.999 (AT cut fund.)	150
5.000 - 5.999 (AT cut fund.)	120
6.000 - 6.999 (AT cut fund.)	100
7.000 - 8.999 (AT cut fund.)	80
9.000 - 12.999 (AT cut fund.)	60
13.00 - 19.999 (AT cut fund.)	50
20.00 - 41.00 (AT cut fund.)	40
22.00 - 46.00 (BT cut)	60
32.00 - 70.00 (3rd O/T)	80

## OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ABMC2 -  MHz -  - R  -  -  -  -  -

**Frequency in MHz**  
e.g. 24.576MHz  
14.31818MHz  
26.000MHz

**Load Capacitance**  
Please specify CL in pF or S for Series (minimum 7pF)

**ESR**  
Specify a value in  $\Omega$

**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

\*\*\*  $\pm 100$  ppm max. over  
-40°C to +85°C only  
for BT-cut

**Freq. Tolerance**  
1:  $\pm 10$  ppm  
7:  $\pm 15$  ppm  
2:  $\pm 20$  ppm  
3:  $\pm 25$  ppm  
4:  $\pm 30$  ppm

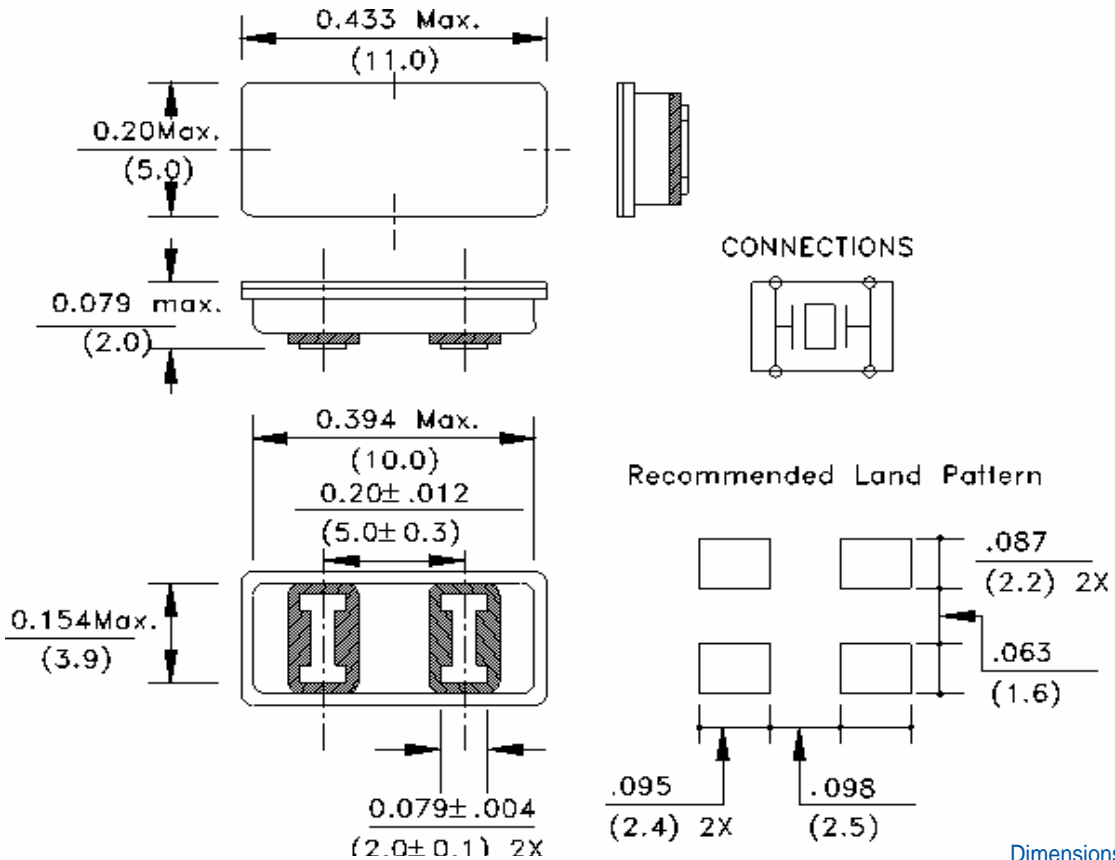
**Freq. Stability**  
U:  $\pm 10$  ppm(\*)  
G:  $\pm 15$  ppm(\*\*)  
X:  $\pm 20$  ppm  
W:  $\pm 25$  ppm  
Y:  $\pm 30$  ppm  
H:  $\pm 35$  ppm  
Z:  $\pm 50$  ppm

\* -10°C to 60°C only  
\*\* Temp option E, B, C, and N only

**Packaging**  
Blank: Bulk  
T: Tape & Reel

**Mode**  
F: Fund.AT for 32-41MHz  
FB: Fund.BT for 22-46MHz

## OUTLINE DRAWING:



Dimensions: inch (mm)