

# CERAMIC SMD CRYSTAL



ABM3B

5.0 X 3.2 X 1.1mm



**RoHS**  
Compliant

ABM3B

## FEATURES:

- Fundamental mode.
- Suitable for reflow.
- Tight Stability available.
- Ceramic package and metal lid assures high precision and reliability.
- Seam sealing.

## APPLICATIONS:

- Cellular telephones, Pagers.
- Communication and Test equipment.
- High Density applications.
- PCMCIA and wireless applications.

## STANDARD SPECIFICATIONS:

### PARAMETERS

ABRACON P/N	ABM3B Series
Frequency Range	8.0 MHz - 50.0 MHz (Fundamental) 50.1 MHz - 125 MHz (3rd overtone)
Operation Mode	Fundamental or 3rd overtone
Operating Temperature	-10°C to +60°C (see options)
Storage Temperature	-40°C to +85°C
Frequency Tolerance @ +25°C	± 50 ppm max. (see options)
Frequency Stability over the Operating Temperature (Ref to + 25°C)	± 50 ppm max. (see options)
Equivalent Series Resistance	See table 1
Shunt Capacitance C0	7 pF max.
Load Capacitance CL	18 pF (see options)
Drive Level	100 µW max., 10 µW typical
Aging (First Year) @ 25°C ± 3°C	± 5ppm max.
Insulation Resistance	500 MΩ min at 100Vdc ± 15 V

TABLE 1- Standard ESR

Frequency (MHz)	ESR(Ω) max	Operational mode
8.000 - 9.999	200	Fundamental
10.000 -11.999	100	Fundamental
12.000 - 15.999	70	Fundamental
16.000 - 50.000	50	Fundamental
50.001 - 80.000	60	3rd Overtone
80.001 - 125.000	60	3rd Overtone

## OPTIONS AND PART IDENTIFICATION:

ABM3B□ - Frequency - □ - R□□□ - □ - □ - □ - □

Height (mm)	
Blank	1.1mm max
1	0.8mm max

Load Capacitance
Please specify CL (6 to 32) in pF or S for Series

\*Consult with ABRACON for CL value under 6pF.)

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

Operating Temp.	
E	0°C to +70°C
B	-20°C to +70°C
C	-30°C to +70°C
N	-30°C to +85°C
D	-40°C to +85°C
*	-40°C to +105°C
*	-55°C to +125°C

\* Frequency stability Z only

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

Packaging	
Blank	Bulk
T	Tape and Reel

Freq. Stability	
U**	± 10 ppm
G***	± 15 ppm
X	± 20 ppm
W	± 25 ppm
Y	± 30 ppm
H	± 35 ppm
Z	± 100 ppm

\*\* Standard temp or options E and B only

\*\*\* Standard temp or options E, B, C and N only.

ABRACON IS  
ISO 9001 / QS 9000  
CERTIFIED



**ABRACON**  
CORPORATION

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## OUTLINE DRAWING:

Please see Table 2 below for height and chamfer information.



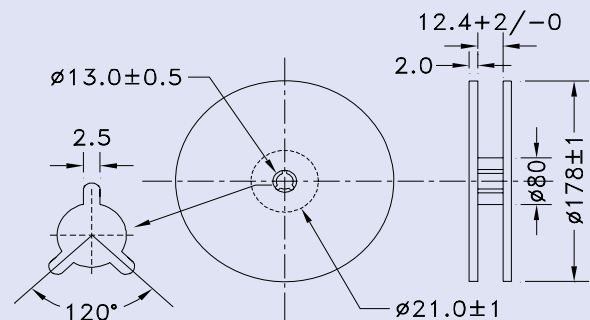
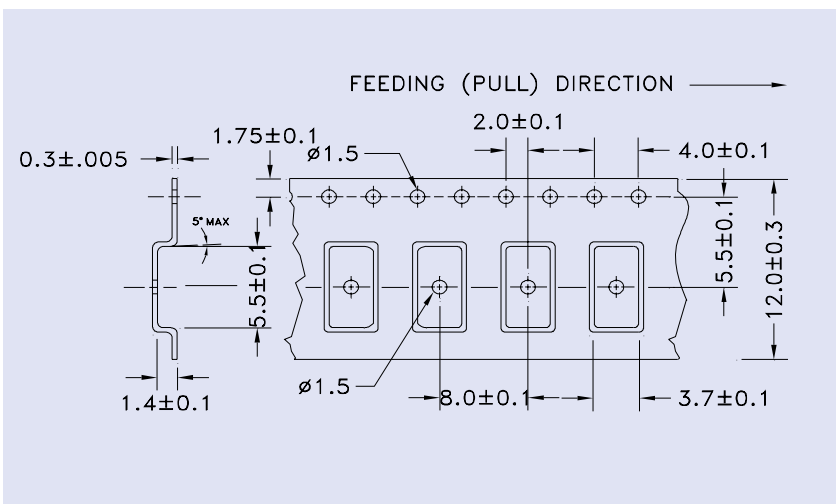
Dimensions: inch (mm)

**Note:** Due to the availability of raw materials, this part may be manufactured with the chamfer on pin 4. Be advised that this does not affect the electrical characteristics of the crystal in any way.

Table 2

	Height (mm)	Chamfer PIN #
ABM3B	1.1mm max	#1 (Default), #4 (See Note)
ABM3B1	0.8mm max	#1 (Default), #4 (See Note)

## TAPE & REEL:



Dimensions: mm