

ULTRA MINIATURE CERAMIC SMD CRYSTAL



ABM8

3.2 x 2.5 x 0.7mm

ABM8



RoHS
Compliant

FEATURES:

- Low in height; suitable for thin equipment.
- Ceramic package and metal lid assures high reliability.
- Tight tolerance and stability available.
- Suitable for solder reflow.
- Fundamental and 3rd over tone mode available..

APPLICATIONS:

- High density applications.
- Modems, communication and test equipment.
- PCMCIA, Wireless applications.

STANDARD SPECIFICATIONS:

PARAMETERS

ABRACON P/N	ABM8 Series
Frequency Range	10.000MHz - 54.000MHz (Fundamental) (Please contact Abracon for F>54MHz) 114.285MHz (3rd OT, see options) (Please contact ABRACON for other 3rd OT frequencies.)
Operation Mode	Fundamental or 3rd OT (see options)
Operating Temperature	-10°C to +60°C (see options)
Storage Temperature	-55°C to +125°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	100µW max., 10µW Typical
Aging at 25°C First Year	±3ppm max
Insulation Resistance	500MΩ min. @ 100Vdc ± 15V

TABLE 1- Standard ESR

Frequency (MHz)	ESR(Ω) max	Operation mode
10.000 -15.999	200	Fundamental
16.000 -19.999	100	Fundamental
20.000 - 29.999	80	Fundamental
30.000 - 54 000	50	Fundamental
114.285	80	3rd OT

OPTIONS AND PART IDENTIFICATION

(Left blank if standard)

ABM8□ - Frequency - □ - R□□□ - □ - □ - □ - □ - □

Height (mm)	
Blank	0.70+/-0.10
1	0.65+/-0.05
2	0.60+/-0.10
3	0.55+/-0.05

Frequency
XX.XXXX MHz

Load Capacitance
Please specify CL in pF or S for Series (minimum 7pF) Consult with ABRACON for CL value under 10pF.

ESR
RXXX (value in ohms 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
J**	-40°C to +105°C
K**	-40°C to +125°C

(**) Frequency stability ±50ppm, and ±100ppm only.

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

Packaging	
T	Tape and Reel
T3	

Please see Page 7 "Packing" for quantity

Mode	
O	3rd OT

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

(*) -10°C to +60°C only;

Contact ABRACON for tighter freq. stability.



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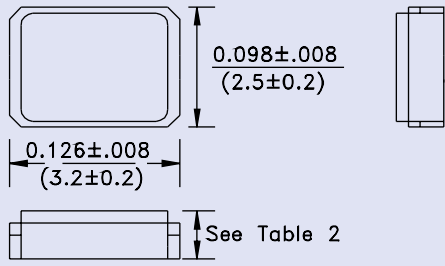
ABM8

3.2 x 2.5 x 0.7mm

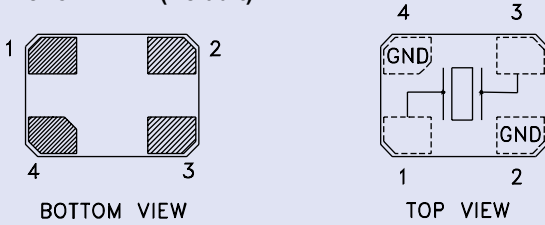
ABM8



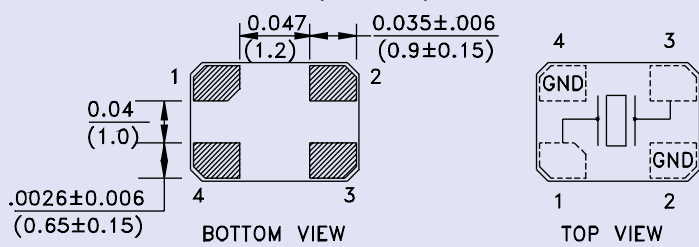
➤ **OUTLINE DRAWING:** Please see Table 2 below for height and chamfer information



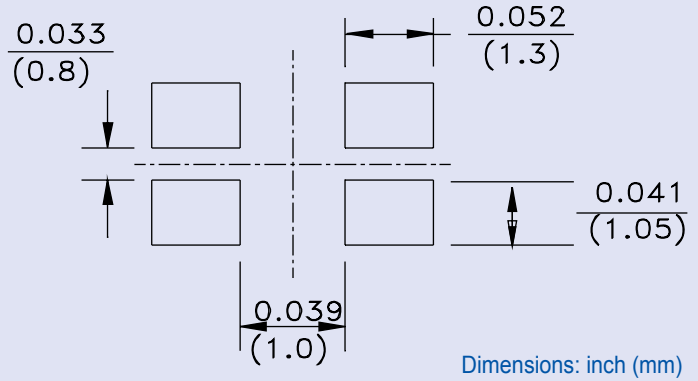
Chamfer on PIN 4 (Default)



Chamfer on PIN 1 (See Note)



Recommended land pattern



Dimensions: inch (mm)

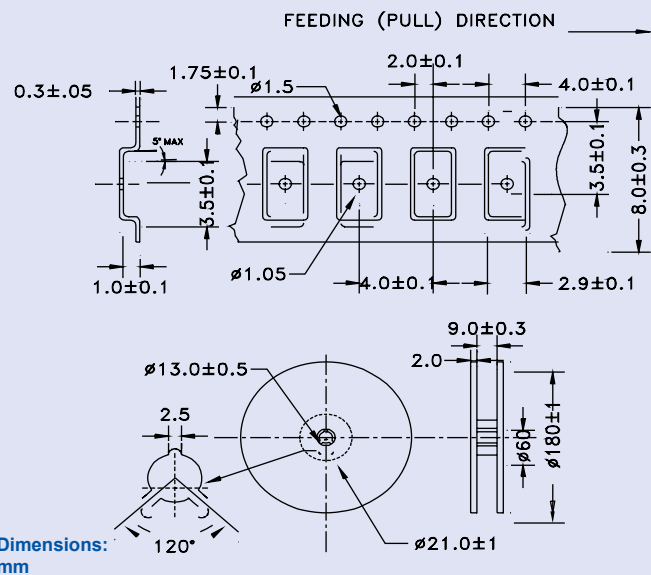
TABLE 2

Height (mm)	Chamfer PIN #
ABM8	0.70+/-0.10 #4 (Default), #1 (See Note)
ABM81	0.65+/-0.05 #1 only
ABM82	0.60+/-0.10 #4 (Default), #1 (See Note)
ABM83	0.55+/-0.05 #1 only

Note: Due to the availability of raw materials, this part may be manufactured with the chamfer on pin 1. Be advised that this does not affect the electrical characteristics of the crystal in any way.

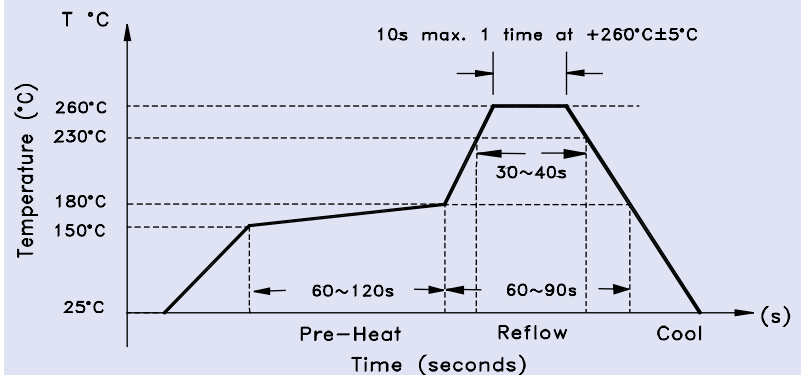
➤ **TAPE & REEL:**

Tape and reel (1,000pcs/reel) : ABM8, ABM82
Tape and reel (3,000pcs/reel) : ABM81, ABM83



Dimensions: mm

➤ **REFLOW PROFILE:**



Need a test socket for the ABM8 Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here](#).

NOTE: Abracon manufactured products are intended for general commercial and industrial use. For applications requiring high reliability and/or presenting extreme operating environment, written consent & authorization from Abracon is required.

ABRACON IS
ISO 9001 / QS 9000
CERTIFIED



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