

ULTRA MINIATURE CERAMIC SMD CRYSTAL

ABM8



RoHS
Compliant



3.2 x 2.5 x 0.7mm

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.
- High precision crystal, fundamental mode.

APPLICATIONS:

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

STANDARD SPECIFICATIONS:

PARAMETERS

ABRACON P/N	ABM8 Series
Frequency Range	12.000MHz - 50.000MHz
Operation Mode	Fundamental (Please contact Abracon for F< 12MHz and F>50MHz)
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	± 5ppm max.
Insulation Resistance	500MΩ min. @ 100Vdc ± 15V

TABLE 1 - Standard ESR

FREQ (MHz)	ESR (Ω)max.
12.000 - 15.999	200
16.000 - 19.999	100
20.000 - 29.999	80
30.000 - 50.000	50

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

Contact ABRACON for wider temp range.

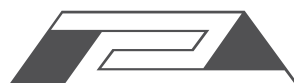
Freq. Tolerance	
1	± 10 ppm
7	± 15 ppm
2	± 20 ppm
3	± 25 ppm
4	± 30 ppm

Packaging	
T	Tape and Reel

Please see Page 6 for quantity

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

(*) -10°C to +60°C only
Contact ABRACON for tighter freq. stability.



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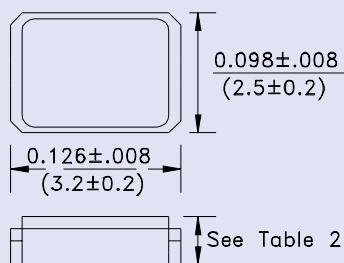


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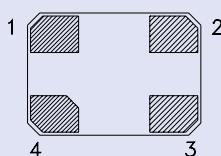


3.2 x 2.5 x 0.7mm

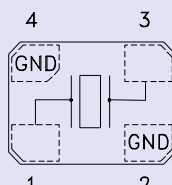
OUTLINE DRAWING: Please see Table 2 below for height and chamfer information



Chamfer on PIN 4 (Default)

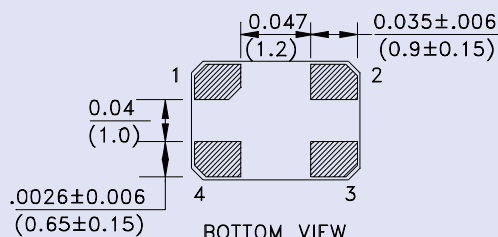


BOTTOM VIEW

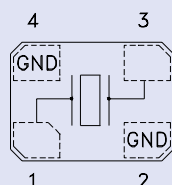


TOP VIEW

Chamfer on PIN 1 (See Note)

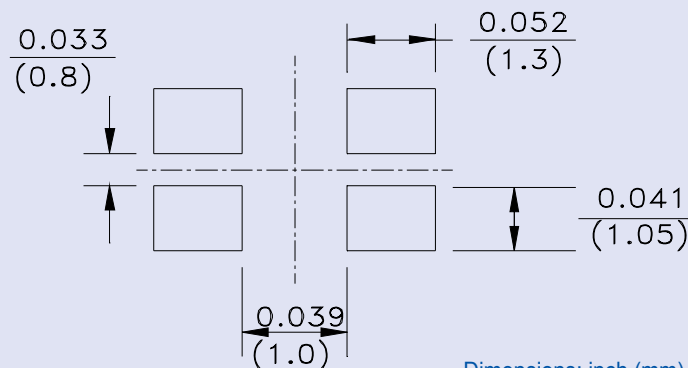


BOTTOM VIEW



TOP VIEW

Recommended land pattern



Dimensions: inch (mm)

TABLE 2

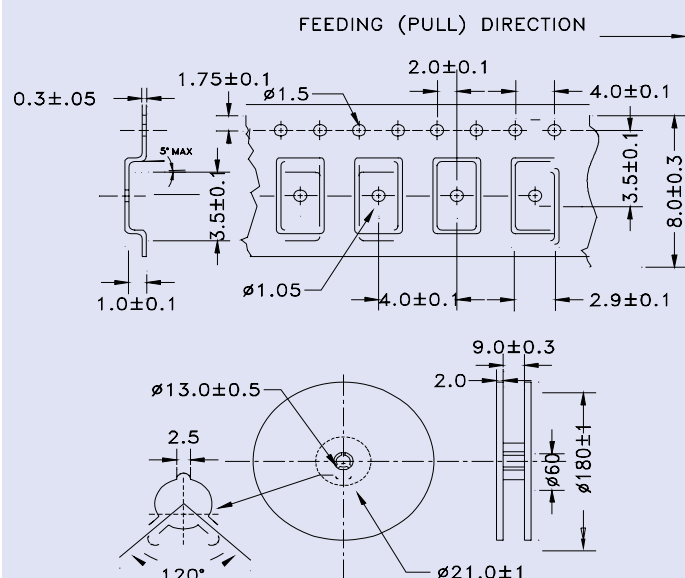
Height (mm)	Chamfer PIN #
ABM8	0.70+/-0.10 #4 (Default), #1 (See Note)
ABM81	0.65+/-0.05 #1 only
ABM82	0.60+/-0.10 #4 (Default), #1 (See Note)
ABM83	0.55+/-0.05 #1 only

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:

REFLOW PROFILE:

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



Dimensions: mm

