

# MINIATURE CERAMIC SMD CRYSTAL



4.0 x 2.5 x 0.7mm

ABM9



## 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.
- PCMCIA, Wireless applications.

## STANDARD SPECIFICATIONS:

### PARAMETERS

ABRACON P/N	ABM9 Series
Frequency Range	12.00 MHz - 32.00 MHz (*)
Operation Mode	Fundamental AT
Operating Temperature	-10°C to + 60°C (see options)
Storage Temperature	- 40°C to + 105°C
Frequency Tolerance	± 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 <sub>0</sub>	7pF max.
Load Capacitance C <sub>L</sub>	18pF (see options)
Drive Level	100µW max., 10µ W typical
Aging at 25°C Per Year	± 5ppm max.
Insulation Resistance	500MΩ min with 100 Vdc ± 15 Vdc

TABLE 1 - Standard ESR

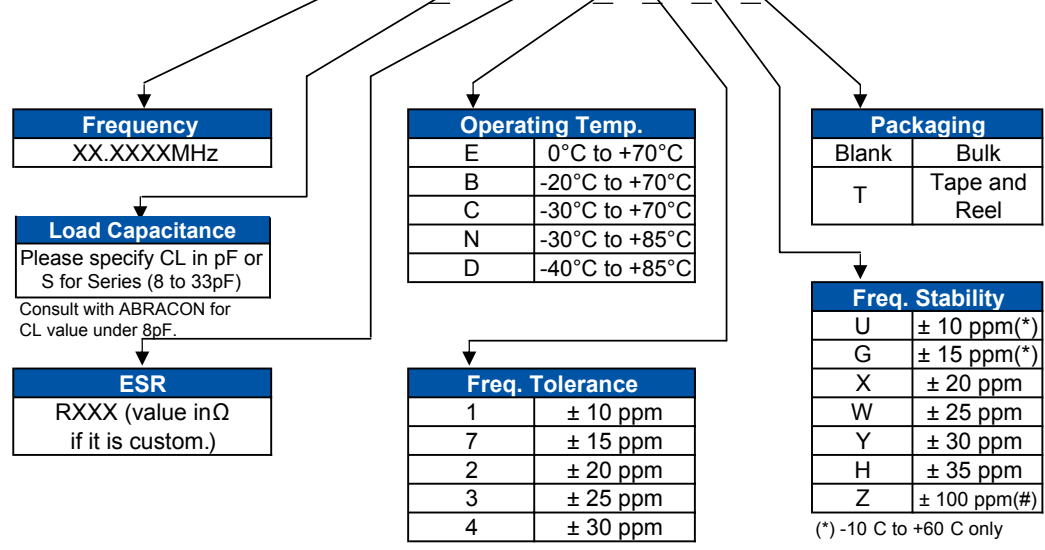
FREQ (MHz)	ESR (Ω)max.
12.000 - 23.999	80
24.000 - 32.000	60

(\*) Frequencies above 32MHz based on availability. Please contact ABRACON for further details.

## OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

### ABM9 - Frequency - - R



(\*) -10 C to +60 C only  
 (#) For extended temperatures.  
 \*Contact ABRACON for tighter freq. stability.

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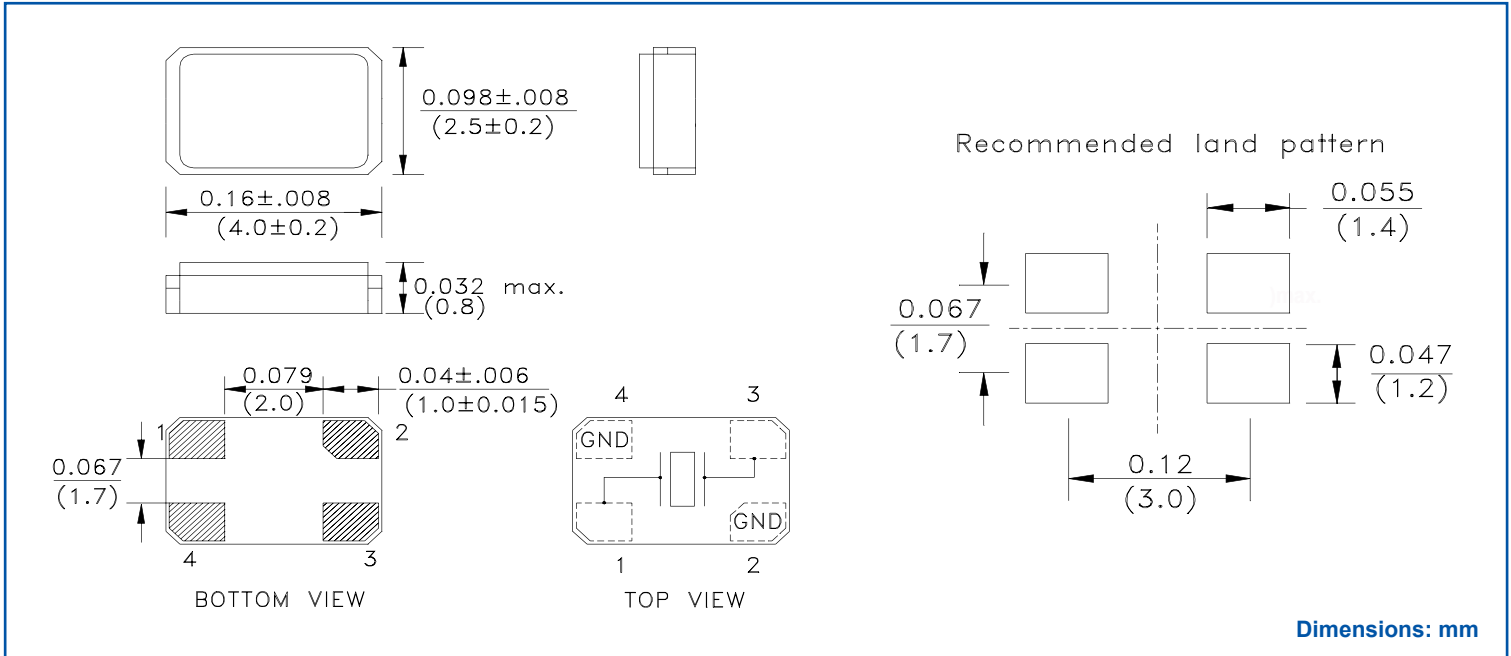
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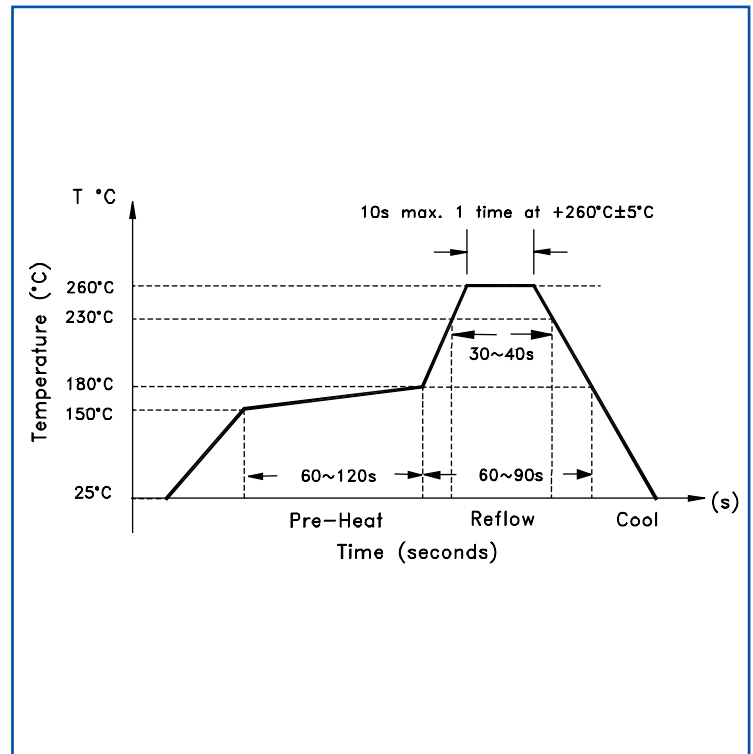
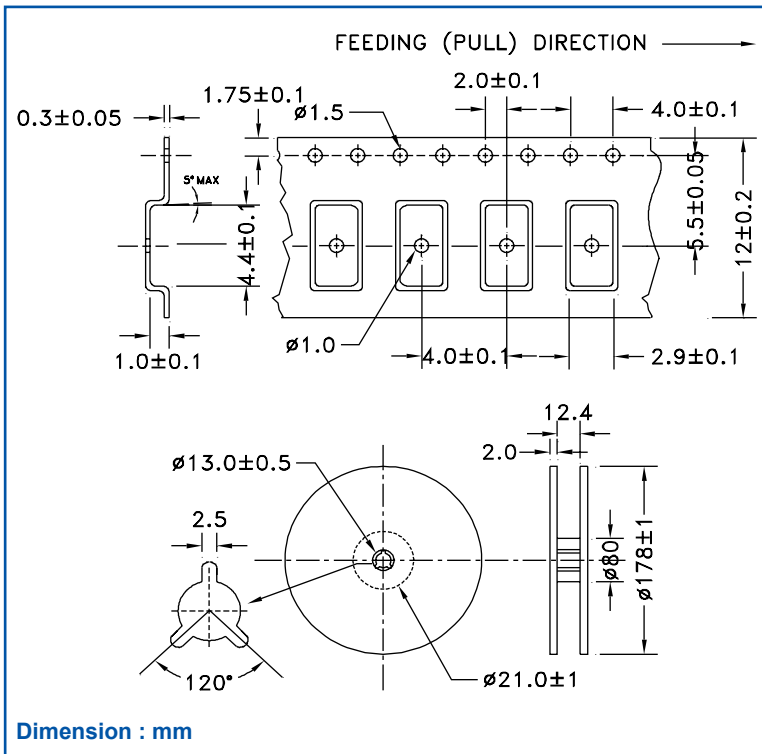
RoHS  
Compliant

## OUTLINE DRAWING:



## TAPE & REEL: Tape and reel (1,000pcs or 3,000pcs/reel)

## REFLOW PROFILE:



**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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