

MINIATURE CERAMIC SMD CRYSTAL

ABM9



RoHS
Compliant



4.0 x 2.5 x 0.8mm

FEATURES:

- Low in height; suitable for thin equipment.
- Available +/-10ppm stability -10 ~ +60°C
- Tight tolerance and stability available.
- Suitable for RoHS compliant reflow

APPLICATIONS:

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

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	12.000	-----	32.000*	MHz	*Contact Abracon for availability of F>32MHz
Operation Mode	Fundamental, AT			-----	
Operating Temperature	-10	-----	+60	°C	See options
Storage Temperature	-40	-----	+105	°C	
Frequency Tolerance @+25°C	-50	-----	+50	ppm	See options
Frequency Stability over the Operating Temperature (ref. to +25°C)	-50	-----	+50	ppm	See options
Equivalent series resistance (R1)	See table 1 below			Ω	
Shunt capacitance (C0)	-----	-----	7.0	pF	
Load capacitance (CL)	-----	18.0	-----	pF	See options
Drive Level	-----	10	100	μW	
Aging	-5	-----	+5	ppm	@25°C±3°C, First year
Insulation Resistance	500	-----	-----	MΩ	@ 100Vdc ± 15V

TABLE 1- Standard ESR

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

OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ABM9 - MHz - - - -

Frequency in MHz
Please specify the frequency in MHz.
e.g. 16.000MHz

Load Capacitance (pF)
Please specify CL in pF or S for series

Custom ESR if other than standard
R□
□: Specify a value in Ω (e.g.: R40)

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

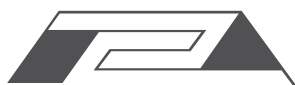
Freq. Tolerance
1: ± 10 ppm
7: ± 15 ppm
2: ± 20 ppm
3: ± 25 ppm
4: ± 30 ppm

Packaging
Blank: Bulk
T: Tape & Reel

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

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

ABRACON IS
ISO 9001: 2008
CERTIFIED



**ABRACON
CORPORATION**

Visit www.abracon.com for Terms & Conditions of Sale

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Revised: 04.07.11

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Technical drawing of the 1000 Series connector showing top, side, and end views with dimensions:

- Top View:** Shows a rectangular connector with rounded corners. The width is dimensioned as 0.16 ± 0.008 (nominal 4.0 ± 0.2). The height is dimensioned as 0.098 ± 0.008 (nominal 2.5 ± 0.2).
- Side View:** Shows the profile of the connector with a maximum height dimensioned as 0.032 (nominal 0.8).
- End View:** Shows the connector from the side, highlighting the rounded ends.

Recommended land pattern

Dimensions: inches (mm)

REFLOW PROFILE:

FEEDING (PULL) DIRECTION →

0.3±0.05

1.75±0.1

1.5

2.0±0.1

4.0±0.1

5° MAX

4.4±0.1

5.5±0.05

12±0.2

1.0±0.1

∅1.0

4.0±0.1

2.9±0.1

∅13.0±0.5

2.5

120°

12.4

2.0

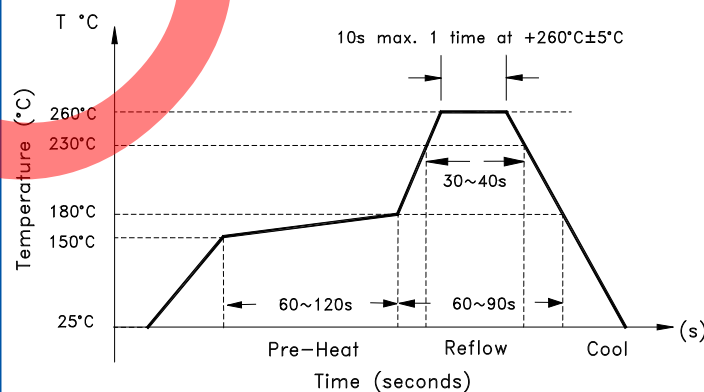
∅80

∅178±1

∅21.0±1

Dimension : mm

Dimension : mm



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