

CERAMIC SMD MICRO MINIATURE MICROPROCESSOR CRYSTAL

ABM7

Pb in Glass
(exempt per RoHS 2002/95/EC Annex (5))

RoHS/RoHS II Compliant

6.0 x 3.5 x 1.4mm

Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable

FEATURES:

- Low in height (1.4 mm max.)
- Ceramic package assures high reliability
- Small size SMD, suitable for high density applications
- Superior heat-resistant glass sealing
- Wide operating temperature available

APPLICATIONS:

- Computers, Modems, Communication equipment
- Thin equipment
- Industrial wide temperature applications

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	8.000		48.000	MHz	Fundamental AT-cut
Operating Temperature	-10		+60	°C	See options
Storage Temperature	-55		+125	°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	See table 1 below			Ω	
Shunt capacitance (C0)			7	pF	
Load capacitance (CL)		18		pF	See options
Drive Level		10	100	μW	
Aging@25°C±3°C			±5	ppm	First year
Insulation Resistance	500			MΩ	@ 100Vdc

Table 1

Frequency (MHz)	ESR(Ω) max.
8.000 – 9.999	100
10.000 – 11.999	80
12.000 – 15.999	60
16.000 – 48.000	50

CERAMIC SMD MICRO MINIATURE MICROPROCESSOR CRYSTAL



6.0 x 3.5 x 1.4mm

ABM7

Pb in Glass
(exempt per RoHS 2002/95/EC Annex (5))

RoHS/RoHS II Compliant

OPTIONS AND PART IDENTIFICATION: (left blank if standard)

ABM7- MHz - - - - - -

Frequency in MHz
e.g. 14.31818MHz
26.000MHz

Load Capacitance (pF)
Please specify CL in pF or
S for series (8 to 33pF)
Please contact ABRACON for
other values

**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
J (**): -40°C ~ +105°C

(***) ±100 ppm only
Please check with Abracon for
availability for non-standard
frequencies with these operating
temperature options.

Freq. Tolerance

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

Freq. Stability

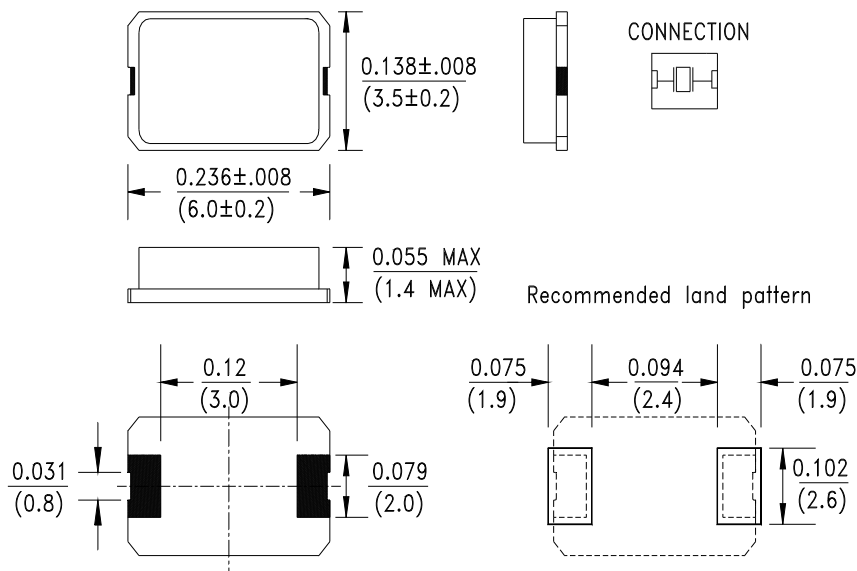
U: ± 10 ppm (*)
G: ± 15 ppm (**)
X: ± 20 ppm
W: ± 25 ppm
Y: ± 30 ppm
H: ± 35 ppm
Q: ± 100 ppm

(*) -10°C to 60°C only.
(**) Contact ABRACON for
availability for
-40°C to +85°C

Packaging

Blank: Bulk
T: 1kpcs/reel
T2: 250pcs/reel

OUTLINE DIMENSION:



**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.**

CERAMIC SMD MICRO MINIATURE MICROPROCESSOR CRYSTAL

ABM7

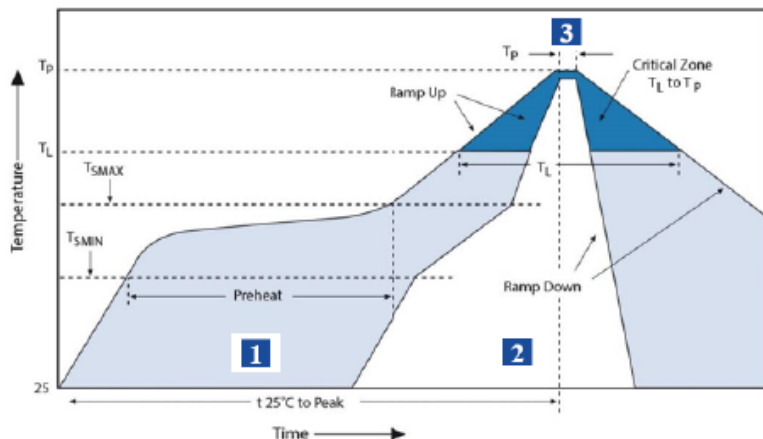
Pb in Glass
(exempt per RoHS 2002/95/EC Annex (5))

RoHS/RoHS II Compliant

ABM7

6.0 x 3.5 x 1.4mm

REFLOW PROFILE:



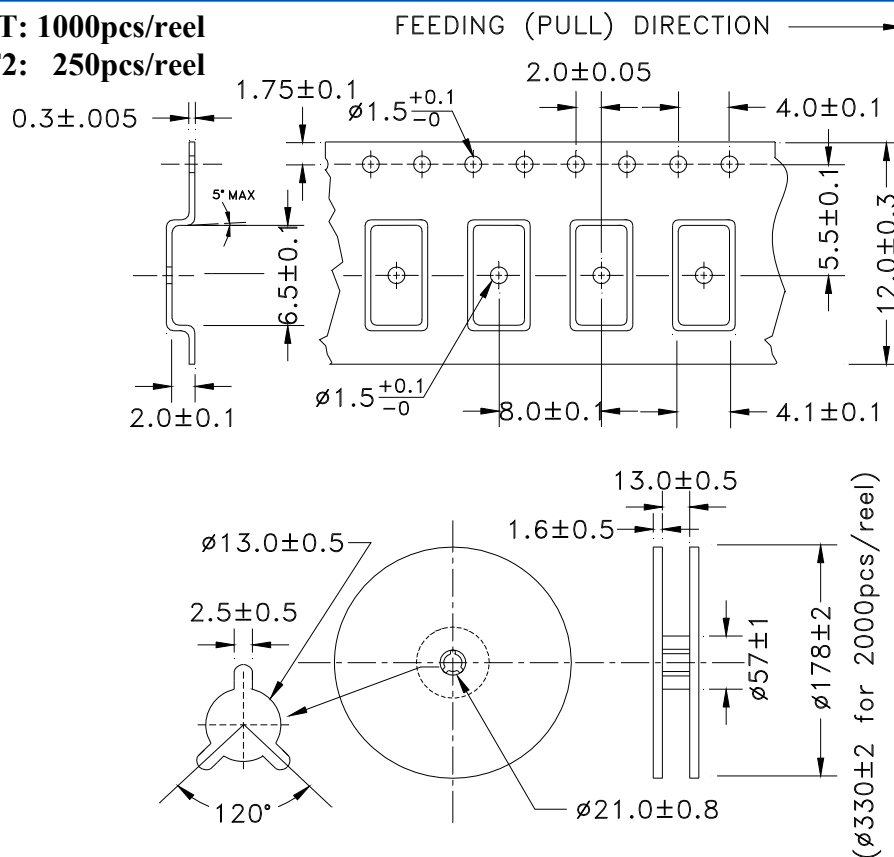
Zone	Description	Temperature	Times
1	Preheat	$T_{MIN} \sim T_{MAX}$ $150^{\circ}\text{C} \sim 180^{\circ}\text{C}$	60 ~ 120 sec.
2	Reflow	T_L 230°C	30 ~ 40 sec.
3	Peak heat	T_p $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$	10 sec. MAX

TAPE & REEL:

Packaging:

T: 1000pcs/reel

T2: 250pcs/reel



Dimensions: mm

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.