

ULTRA MINIATURE CERAMIC SMD CRYSTAL

ABM8

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



RoHS
Compliant



3.2 x 2.5 x 0.8mm

FEATURES:

- Low in height; suitable for thin equipment, 0.8mm max
- Seam sealed package assures high reliability
- Tight tolerance and stability available
- Suitable for RoHS reflow
- Available for fundamental and 3rd over tone mode

APPLICATIONS:

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

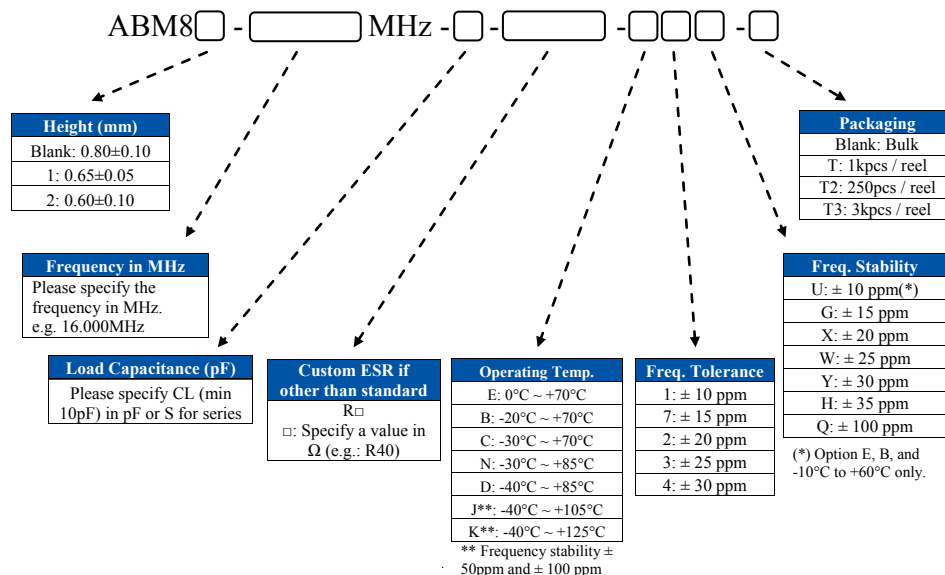
STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	10.000	-----	125.000*	MHz	Contact Abracon for available F<11MHz
Operation Mode	Fundamental			-----	10MHz - 54MHz
	3rd Overtone (Standard Frequencies: 64, 66, 66.6666, 75, 80, 98.304, 100, 125MHz)			-----	64.000 MHz - 125.000 MHz Please contact Abracon for available frequencies
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 (R1)	See table 1 below			Ω	
Shunt capacitance (C0)	-----	-----	7.0	pF	
Load capacitance (CL)	-----	18.0	-----	pF	Standard (See options if other than STD)
Drive Level	-----	10	100	μW	
Aging	-3	-----	+3	ppm	@25°C±3°C First year
Insulation Resistance	500	-----	-----	MΩ	@ 100Vdc ± 15V

TABLE 1- Standard ESR

Frequency (MHz)	ESR(Ω) max	Frequency (MHz)	ESR(Ω) max
10.000 -11.999 (Fund)	200	30.000 - 39.999 (Fund)	40
12.000 -15.999 (Fund)	120	40.000 - 54.000 (Fund)	35
16.000 -19.999 (Fund)	70	66.000 - 80.000 (3rd OT)	120
20.000 - 29.999 (Fund)	50	98.304 - 125.000 (3rd OT)	80

OPTIONS AND PART IDENTIFICATION: (Left blank if standard)



ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
The Power of Linking Together

2 Faraday, Suite# B | Irvine | CA 92618 Revised: 08.19.15
Ph. 949.546.8000 | Fax. 949.546.8001

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

ABM8

Pb

RoHS
Compliant

3.2 x 2.5 x 0.8mm

0.098±0.008
(2.5±0.2)

0.126±0.008
(3.2±0.2)

See Table 2

0.047
(1.2)

0.035±0.006
(0.9±0.15)

0.04
(1.0)

0.026±0.006
(0.65±0.15)

BOTTOM VIEW

TOP VIEW

Recommended land pattern

0.033
(0.8)

0.052
(1.3)

0.039
(1.0)

0.041
(1.05)

Table 2

Height (mm)	
ABM8	0.80 max
ABM81	0.65+/-0.05
ABM82	0.60+/-0.10

Dimensions: inch (mm)

Option "-T" : Tape and reel (1,000pcs/reel) : ABM8, ABM82
Tape and reel (3,000pcs/reel) : ABM81

Option "-T2" : Tape and reel (250pcspcs/reel) : ABM8

Option "-T3" : Tape and reel (3,000pcs/reel) : ABM8, ABM82 only

FEEDING (PULL) DIRECTION →

Technical drawing of the ABM8 package showing dimensions in mm. The drawing includes a top view, a side view, and a detail view of the mounting tab.

Top View Dimensions:

- Overall width: 8.0 ± 0.3
- Overall length: 13.0 ± 0.5
- Pin pitch (center-to-center): 2.0 ± 0.1
- Pin diameter: $\phi 1.5$
- Distance from left edge to first pin: 0.3 ± 0.05
- Distance from last pin to right edge: 4.0 ± 0.1
- Distance from left edge to mounting tab: 1.0 ± 0.1
- Mounting tab width: 1.75 ± 0.1
- Mounting tab thickness: 3.5 ± 0.1
- Distance from mounting tab to first pin: 3.5 ± 0.1
- Distance from last pin to mounting tab: 3.5 ± 0.1
- Distance between mounting holes: $\phi 1.05$
- Distance from mounting hole to first pin: 4.0 ± 0.1
- Distance from mounting hole to last pin: 2.9 ± 0.1

Side View Dimensions:

- Overall height: 9.0 ± 0.3
- Distance from top edge to mounting hole: 2.0
- Mounting hole diameter: $\phi 6H$
- Overall length: 18.0 ± 1

Detail View Dimensions:

- Mounting tab width: 2.5
- Mounting tab thickness: 1.2
- Mounting hole diameter: $\phi 1.2$
- Angle: 120°

Other Dimensions:

- Distance from mounting hole to first pin: 4.0 ± 0.1
- Distance from mounting hole to last pin: 2.9 ± 0.1
- Distance between mounting holes: $\phi 1.05$

Dimensions: mm

The graph illustrates the temperature profile for the reflow soldering process. The Y-axis represents Temperature (°C) and the X-axis represents Time (seconds). The profile starts at 25°C, rises to 150°C (Pre-Heat), then to 180°C, and finally to 260°C (Reflow). It remains at 260°C for a maximum of 10 seconds, then cools down. Key time intervals are marked: 60~120s for Pre-Heat, 30~40s for Reflow, and 60~90s for Cool.



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.