

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

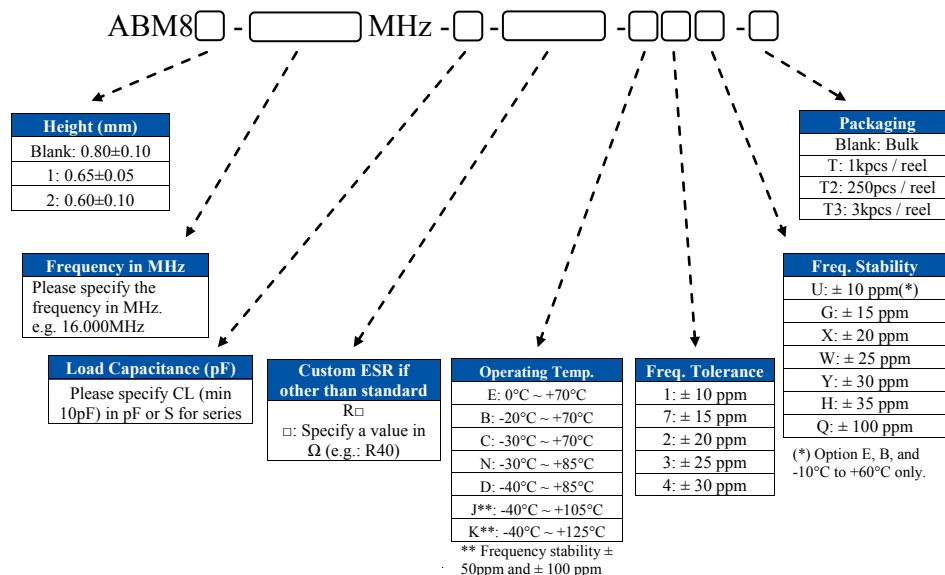
STANDARD SPECIFICATIONS:

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)



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ABM8

Pb

RoHS
Compliant

3.2 x 2.5 x 0.8mm

Side View Dimensions:

- Height: 0.098 ± 0.008 (2.5 ± 0.2)
- Width: 0.126 ± 0.008 (3.2 ± 0.2)
- Reference: See Table 2

Bottom View Dimensions:

- Top-left corner: 0.047 (1.2)
- Top-right corner: 0.035 ± 0.006 (0.9 ± 0.15)
- Left side: 0.04 (1.0)
- Bottom-left corner: 0.026 ± 0.006 (0.65 ± 0.15)

Top View: Shows the connector footprint with pins 1, 2, 3, and 4, and GND locations.

Recommended land pattern:

- Pin width: 0.033 (0.8)
- Pin spacing: 0.052 (1.3)
- Pin height: 0.041 (1.05)
- Pin pitch: 0.039 (1.0)

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 pads.

Top View Dimensions:

- Overall width: 8.0 ± 0.3
- Overall length: 1.0 ± 0.1
- Distance from left edge to first pin center: 0.3 ± 0.05
- Pin pitch (center-to-center): 1.75 ± 0.1
- Pin diameter: $\phi 1.5$
- Distance from last pin center to right edge: 4.0 ± 0.1
- Distance from left edge to first pad center: 1.0 ± 0.1
- Pad pitch (center-to-center): 4.0 ± 0.1
- Distance from last pad center to right edge: 2.9 ± 0.1
- Distance from left edge to first pad center: 1.0 ± 0.1
- Pad width: 2.5
- Pad angle: 120°

Side View Dimensions:

- Overall height: 3.5 ± 0.1
- Distance from top edge to pin center: 1.75 ± 0.1
- Distance from top edge to pad center: 3.5 ± 0.1
- Distance from top edge to pin center: 1.75 ± 0.1
- Distance from top edge to pad center: 3.5 ± 0.1
- Distance from top edge to pin center: 1.75 ± 0.1
- Distance from top edge to pad center: 3.5 ± 0.1

Detail View Dimensions:

- Overall diameter: $\phi 13.0 \pm 0.5$
- Distance from center to mounting pad center: 2.5
- Mounting pad diameter: $\phi 6.0$
- Mounting pad thickness: 2.0
- Mounting pad width: 9.0 ± 0.3
- Mounting pad length: 180 ± 1

Other Dimensions:

- Distance from center to mounting pad center: $\phi 21.0 \pm 1$
- Distance from center to mounting pad center: $\phi 1.05$

Dimensions:
mm



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