CERAMIC SMD CRYSTAL



3.2 x 2.5 x 0.8mm

ABM8

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

Pb RoHS Compliant

FEATURES:

- Seam sealed package assures high reliability
- Tight tolerance and stability available
- Suitable for RoHS reflow

APPLICATIONS:

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

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	8.000		125.000*	MHz	Contact Abracon for available F<10MHz
Operation Mode	Fundamental				8MHz - 54MHz
	3rd Overtone (Standard Frequencies: 64, 66, 66.6666, 75, 80, 98.304, 100, 125MHz)				64MHz - 125MHz Please contact Abracon for available frequencies
Operating Temperature	-10		+60	ºC	Standard (see options if other than STD)
Storage Temperature	-55		+125	ºC	
Frequency Tolerance @+25°C	-50		+50	ppm	Standard (see options if other than STD)
Frequency Stability over the Operating Temperature (ref. to +25°C)	-50		+50	ppm	Standard (see options if other than STD)
Equivalent series resistance (R1)	See table 1 below			Ω	
Shunt capacitance (C0)			3.0	pF	
Load capacitance (CL)		18.0		pF	Standard (See options if other than STD)
Drive Level		10	100	µW	
Aging	-2		+2	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
8.000-9.999 (Fund)	400	30.000 - 39.999 (Fund)	40
10.000 -11.999 (Fund)	200	40.000 - 54.000 (Fund)	35
12.000 -15.999 (Fund)	120	64.000 - 80.000 (3rd OT)	120
16.000 -19.999 (Fund)	70	98.304 - 125.000 (3rd OT)	80
20.000 - 29.999 (Fund)	50		

OPTIONS AND PART IDENTIFICATION: (Left blank if standard)

ABM8☐ - ☐☐☐☐☐ MHz - ☐ - ☐☐☐ - ☐

Height (mm)
Blank: 0.80 max
1: 0.65±0.05
2: 0.60±0.10

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

Load Capacitance (pF)
Please specify CL (min 6pF) in pF or S for series

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

Operating Temp.
Blank: -10°C ~ +60°C
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
K**: -40°C ~ +125°C
** Frequency stability ± 50ppm and ± 100 ppm

Freq. Tolerance
Blank: ± 50 ppm
1: ± 10 ppm
7: ± 15 ppm
2: ± 20 ppm
3: ± 25 ppm
4: ± 30 ppm

Freq. Stability
Blank: ± 50 ppm
U: ± 10 ppm(*)
G: ± 15 ppm
X: ± 20 ppm
W: ± 25 ppm
Y: ± 30 ppm
H: ± 35 ppm
Q: ± 100 ppm
(*) Option E, B, and -10°C to +60°C only.

Packaging
Blank: Bulk
T: 1kpcs / reel
T2: 250pcs / reel
T3: 3kpcs / reel

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ABRACON IS ISO9001-2015 CERTIFIED

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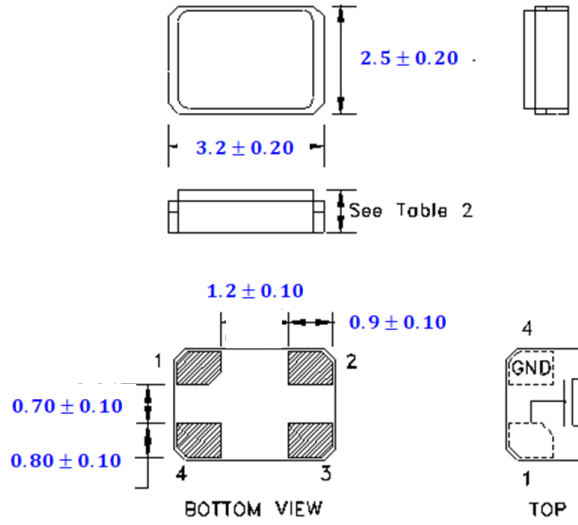
ABM8



RoHS Compliant

3.2 x 2.5 x 0.8mm

OUTLINE DRAWING:



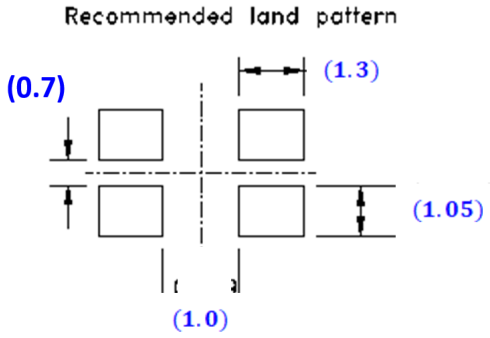


Table 2

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

Note: Due to material availability, the chamfer could be located on pin #1, 3, or 4. Be advised that the chamfer location has no impact on the electrical performance of the device.

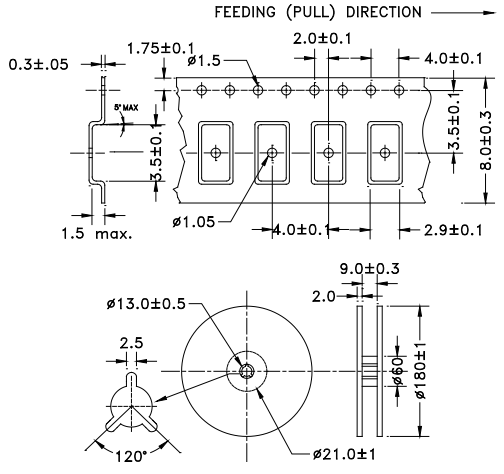
Dimensions: mm

TAPE & REEL:

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

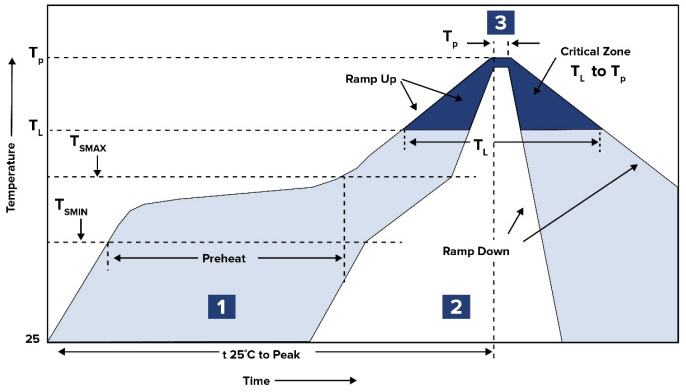
Option "-T2" : Tape and reel (250pcspcs/reel) : ABM8

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



Dimensions: mm

REFLOW PROFILE:



Zone	Description	Temperature	Time
1	Preheat	T_{SMIN} ~ T_{SMAX} 150°C ~ 180°C	60 ~ 120 sec.
2	Reflow	T_L 230°C	30 ~ 40 sec.
3	Peak heat	T_P 260°C±5°C	10 sec. MAX

ATTENTION: Abracon LLC'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-dependent 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 LLC is required. Please contact Abracon LLC for more information.

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