

# ULTRA MINIATURE CERAMIC GLASS SEALED SMD CRYSTAL

ABM8G

Pb in glass exemption 7 (c)-I per  
RoHS II 2011/65/EU Annex

RoHS  
Compliant



3.2 x 2.5 x 1.0 mm

## FEATURES:

- Low in height; suitable for thin equipment.
- Glass sealed package assures high reliability and high temperature operation
- Tight tolerance and stability available.
- IR reflow capable
- Low cost version of ABM8 crystal

## APPLICATIONS:

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

## STANDARD SPECIFICATIONS:

### PARAMETERS

|                                                              |                              |
|--------------------------------------------------------------|------------------------------|
| ABRACON P/N                                                  | ABM8G Series                 |
| Frequency Range                                              | 12.000MHz - 50.000MHz        |
| Operation Mode                                               | Fundamental                  |
| Operating Temperature                                        | -10°C to +60°C (see options) |
| Storage Temperature                                          | -55°C to +125°C              |
| Frequency Tolerance at +25°C                                 | ± 50ppm max. (see options)   |
| Frequency Stability over the Operating Temp. (Ref. to +25°C) | ± 50ppm max. (see options)   |
| Equivalent Series Resistance                                 | See table 1                  |
| Shunt Capacitance C0                                         | 5.0pF max                    |
| Load Capacitance CL                                          | 10pF (see options)           |
| Drive Level                                                  | 100μW max., 10μW Typical     |
| Aging (first year) at 25°C ± 3°C                             | ±3ppm max.                   |
| Insulation Resistance                                        | 500 M Ω min. at 100 Vdc ±15V |

TABLE 1- Standard ESR

| Frequency (MHz) | ESR(Ω) max |
|-----------------|------------|
| 12.000          | 120        |
| 12.001 - 20.000 | 80         |
| 20.001 - 28.00  | 60         |
| 28.001 - 50.00  | 50         |

## OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ABM8G -  MHz -  - R  -  -  -  -

| Frequency in MHz |
|------------------|
| e.g. 24.576MHz   |
| 14.31818MHz      |
| 26.000MHz        |

| Load Capacitance                                      |
|-------------------------------------------------------|
| Please specify CL in pF or S for Series (Minimum 7pF) |
| Please contact ABRACON for values under 10pF          |

| ESR                  |
|----------------------|
| Specify a value in Ω |

| 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 (1kpcs)  |
| T3: Tape & Reel (3kpcs) |

| 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 tighter freq. stability.

(\*\*) -10°C to +60°C option E,B,C,N only

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Revised: 05.06.14

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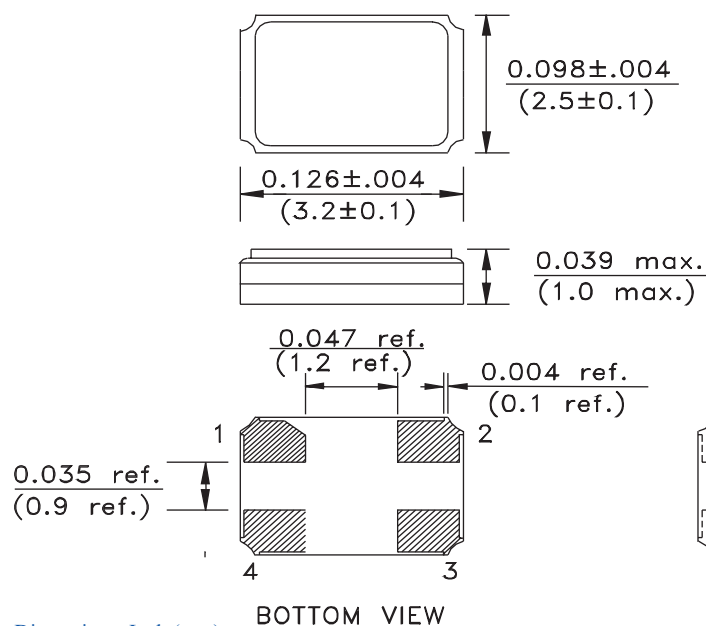
Pb in glass exemption 7 (c)-I per  
RoHS II 2011/65/EU Annex

**RoHS**  
Compliant

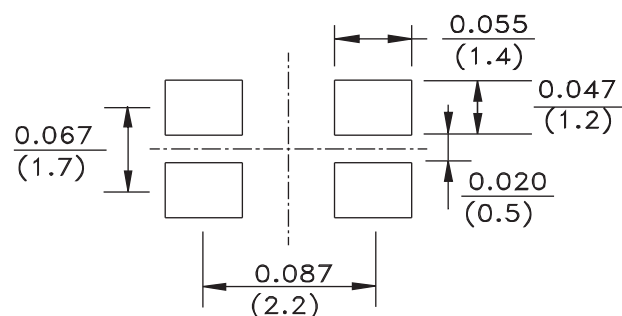


3.2 x 2.5 x 1.0 mm

## ➤ OUTLINE DRAWING:



### Recommended land pattern

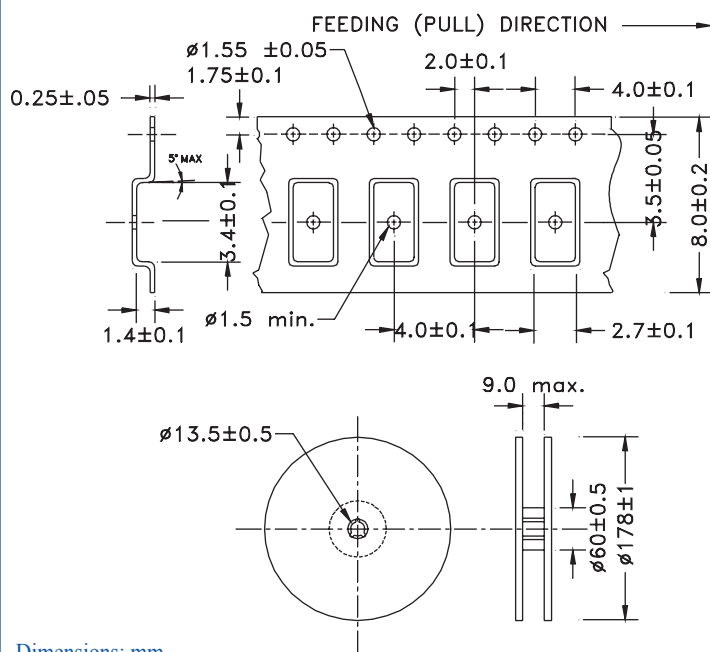


Note: Due to the availability of raw materials, this part may be manufactured with the chamfer on pin 4. Be advised that this does not affect the electrical characteristics of the crystal in any way.

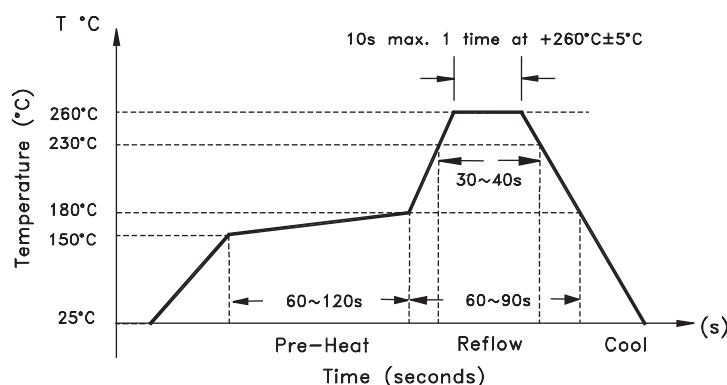
Per the Top Marking from left to right, Pin 1 is always located on the bottom left.

## ➤ TAPE & REEL:

Tape and reel (1,000pcs/reel)  
Tape and reel (3,000pcs/reel)



## ➤ REFLOW PROFILE:



Need a test socket for the ABM8G Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here](#).

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