

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:

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

APPLICATIONS:

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

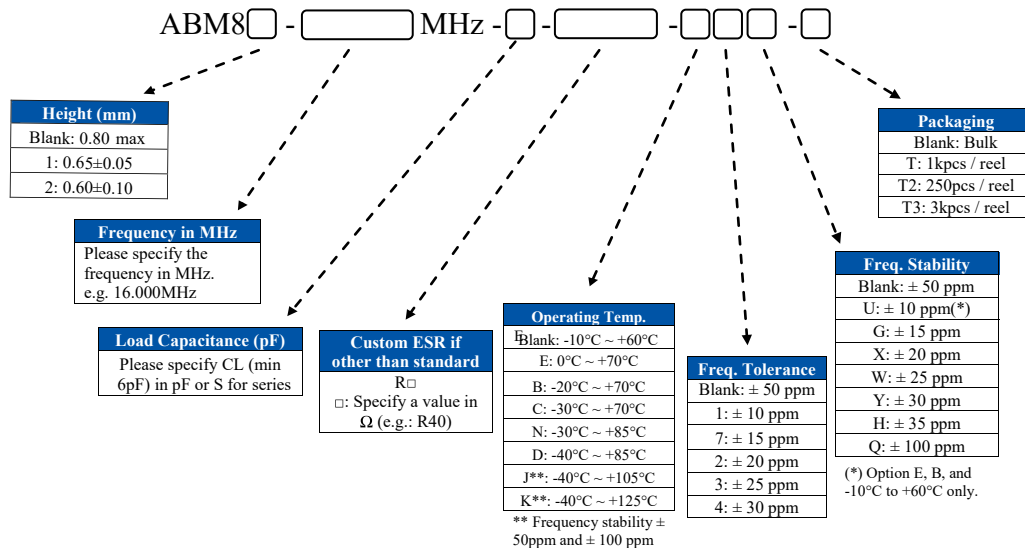
STANDARD SPECIFICATIONS:

| 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 | °C | Standard (see options if other than STD) |
| Storage Temperature | -55 | | +125 | °C | |
| 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)



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OUTLINE DRAWING:

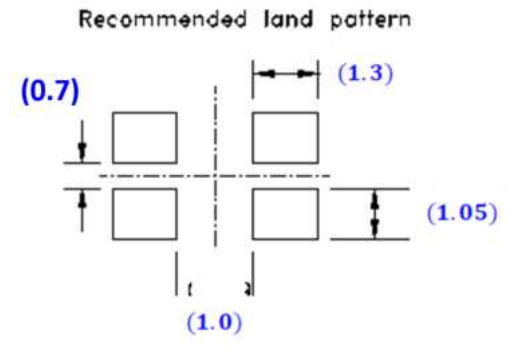
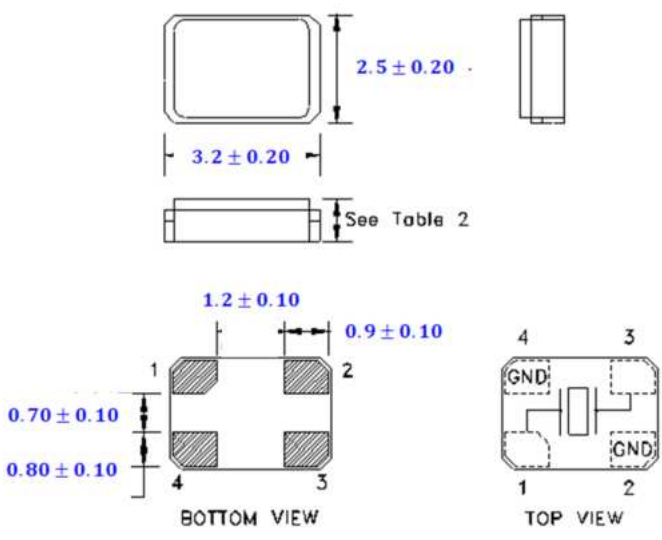


Table 2

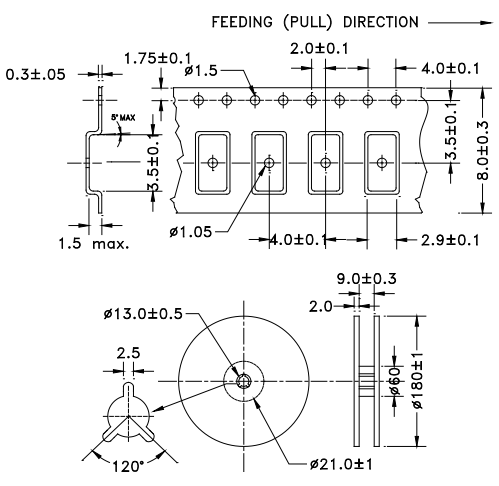
| | Height (mm) |
|-------|-------------|
| ABM8 | 0.80 max |
| ABM81 | 0.65+/-0.05 |
| ABM82 | 0.60+/-0.10 |

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

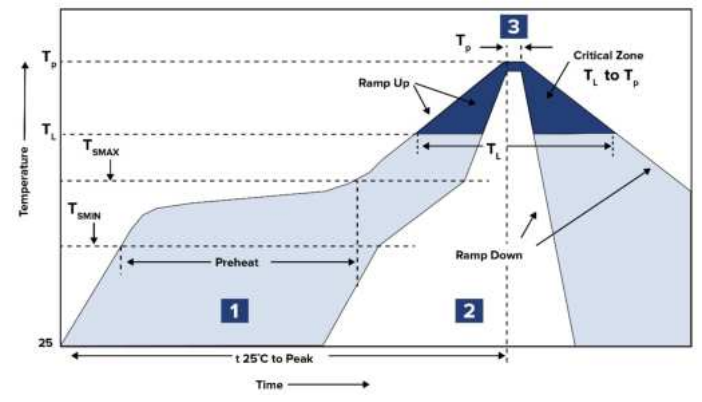
TAPE & REEL:

- 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 | $T_{SMIN} \sim T_{SMAX}$ $150^\circ\text{C} \sim 180^\circ\text{C}$ | 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 |

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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 CERTIFIED