# MINIATURE CERAMIC SMD CRYSTAL




5.0 X 3.2 X 1.3mm

**ABM3**

Pb in Glass, exemption 7C-I per RoHS II Directive 2011/65/EU Annex | **RoHS/RoHS II Compliant.**

Smaller package alternative for ABM7 series

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

## FEATURES:

- AT-cut fundamental or 3rd OT mode
- Suitable for RoHS reflow profile
- Tight Stability available ±10
- Ceramic package hermetically glass sealed assures high precision and reliability.

## APPLICATIONS:

- Cellular telephones, pagers
- Communication and test equipment
- PCMCIA and wireless applications

## STANDARD SPECIFICATIONS:

| Parameters | Minimum | Typical | Maximum | Units | Notes |
|---|---|---|---|---|---|
| Frequency Range | 8.000 | | 54.000 | MHz | Fundamental |
| | 54.100 | | 80.000 | | 3rd Overtone |
| Operation Mode | Fundamental or 3rd Overtone | | | | |
| Operating Temperature | -10 | | +60 | ºC | See options |
| Storage Temperature | -40 | | +90 | ºC | |
| Frequency Tolerance @+25ºC | -50 | | +50 | ppm | See options |
| Frequency Stability over the Operating Temperature ( ref. to +25ºC) | -50 | | +50 | ppm | See options |
| Equivalent series resistance (R1) | | | 140 | Ω | 8.000 ≤ F < 9.000 (Fund) |
| | | | 120 | | 9.000 ≤ F < 10.000 (Fund) |
| | | | 60 | | 10.000 ≤ F < 16.000 (Fund) |
| | | | 40 | | 16.000 ≤ F < 20.000 (Fund) |
| | | | 30 | | 20.000 ≤ F < 30.000 (Fund) |
| | | | 25 | | 30.000 ≤ F ≤ 54.000 (Fund) |
| | | | 60 | | 54.000 < F ≤ 80.000 (3rd OT) |
| Shunt capacitance (C0) | | | 7 | pF | |
| Load capacitance (CL) | 18 | | | pF | Standard (See options if other than STD) |
| Drive Level | | 10 | 100 | µW | |
| Aging | -5 | | +5 | ppm | @25ºC±3ºC First year |
| Insulation Resistance | 500 | | | MΩ | @ 100Vdc ± 15V |

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## OPTIONS AND PART IDENTIFICATION: (Left blank if standard)

ABM3 - [ ] MHz - [ ] - [ ] - [ ][ ][ ] - [ ]

**Frequency in MHz**
Please specify the frequency in MHz.
e.g. 14.31818MHz

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

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

| Operating Temp. (See Table 1 for details) |
|---|
| 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 |

| Freq. Tolerance |
|---|
| 7: ± 15 ppm |
| 2: ± 20 ppm |
| 3: ± 25 ppm |
| 4: ± 30 ppm |

| Freq. Stability (See Table 1 for details) |
|---|
| U: ± 10 ppm |
| G: ± 15 ppm |
| X: ± 20 ppm |
| W: ± 25 ppm |
| Y: ± 30 ppm |
| H: ± 35 ppm |
| Q: ± 100 ppm |

**Packaging**
Blank: Bulk
T: Tape & Reel

**Table 1 Available Combinations of Operating Temp. and Freq. Stability**

| Operating Temp. | Freq. Stability | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | U:±10ppm | G:±15ppm | X:±20ppm | W:±25ppm | Y:±30ppm | H:±35ppm | Std:±50ppm | Q:±100ppm |
| Std: -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 | | | | | | | √ | √ |



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# MINIATURE CERAMIC SMD CRYSTAL

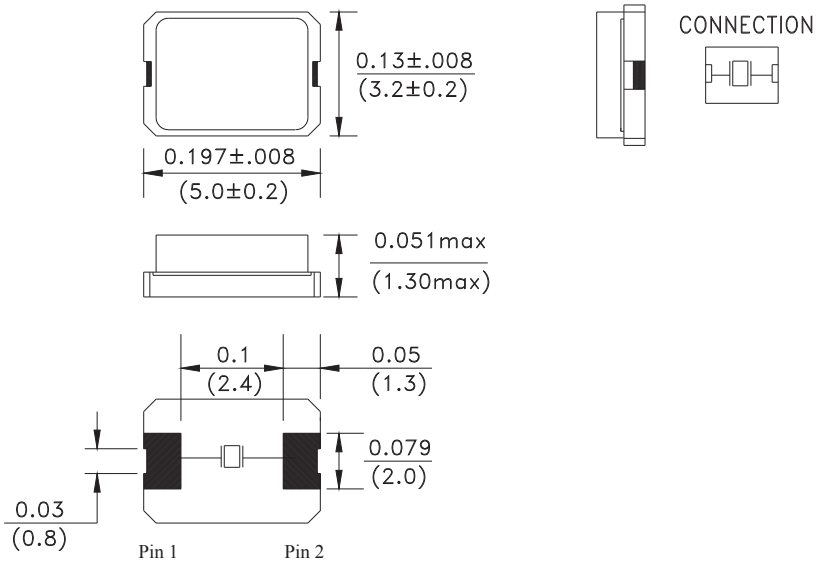
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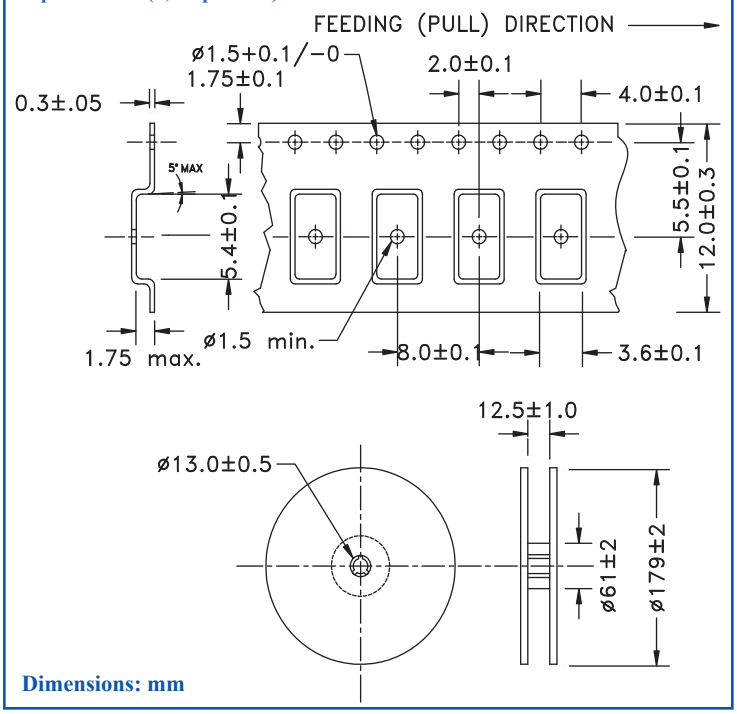
## OUTLINE DRAWING:




Dimensions: inch (mm)

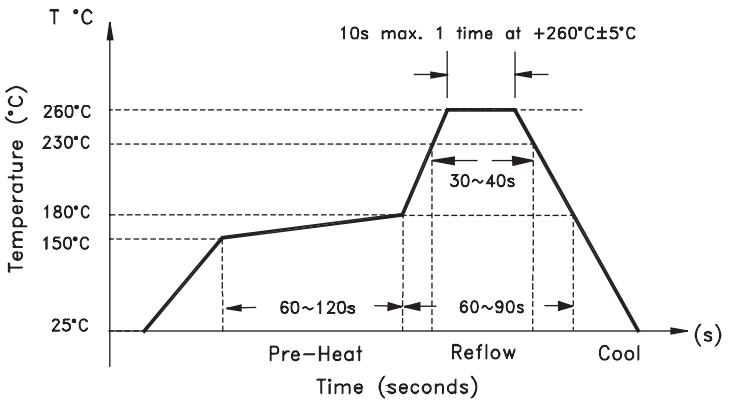
## TAPE & REEL:

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




**Dimensions: mm**

## REFLOW PROFILE






Need a test socket for the ABM3 Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, **click here. P/N: AXS-5032-02-06**

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