

# ULTRA MINIATURE CERAMIC PACKAGE HIGH STABILITY SMD CRYSTAL

ABM3X



5.0 x 3.2 x 0.9mm

**ABM3X**



**RoHS/RoHS II compliant**

## FEATURES:

- -40°C to +125°C wide operating temperature range
- ±40 ppm Max. All Inclusive frequency stability over 10-year product life
- Fundamental Mode, low ESR Quartz design
- Ultra miniature, Seam-Sealed, RoHS compliant reflow-able package

## APPLICATIONS:

- Zigbee based designs for indoor / outdoor applications
- Wireless Sensor Networks
- Industrial Control
- Home and Building Automation
- Consumer Electronics
- PC Peripherals

## STANDARD SPECIFICATIONS

| Parameters                                                                | Minimum     | Typical          | Maximum | Units | Notes            |
|---------------------------------------------------------------------------|-------------|------------------|---------|-------|------------------|
| Center Frequency                                                          |             | 24.000<br>32.000 |         | MHz   |                  |
| Operation Mode                                                            | Fundamental |                  |         |       |                  |
| Operating Temperature                                                     | -40         |                  | +125    | °C    |                  |
| Storage Temperature                                                       | -55         |                  | +155    | °C    |                  |
| Overall Frequency Stability (All inclusive)                               | -40         |                  | +40     | ppm   |                  |
| Frequency Tolerance                                                       | -10         |                  | +10     | ppm   |                  |
| Frequency Stability over the Operating Temperature Range ( ref. to +25°C) | -25         |                  | +25     | ppm   |                  |
| Aging                                                                     | -5          |                  | +5      | ppm   | @25±3°C 10 years |
| Equivalent series resistance (R1)                                         |             |                  | 30      | Ω     |                  |
| Shunt capacitance (C0)                                                    |             |                  | 3.5     | pF    |                  |
| Motional capacitance (C1)                                                 |             | 4.5              |         | fF    |                  |
| Load capacitance (CL)                                                     |             | 10               |         | pF    |                  |
| Drive Level                                                               |             | 50               | 100     | μW    |                  |
| Insulation Resistance                                                     | 500         |                  |         | MΩ    | @100Vdc±15V      |

## OPTIONS AND PART IDENTIFICATION:

ABM3X -      -      - MHz -

| Internal Code | Frequency  |
|---------------|------------|
| 101           | 24.000 MHz |
| 102           | 32.000 MHz |

| Packaging       |
|-----------------|
| Blank: Bulk     |
| T: 1kpcs / reel |

**Example Part #:**      **ABM3X-101-24.000MHz-T**

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ABM3X



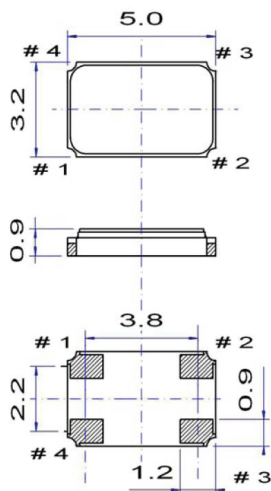
5.0 x 3.2 x 0.9mm

ABM3X



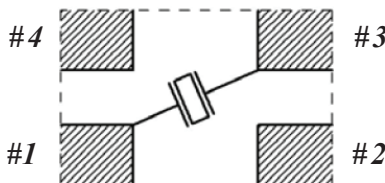
RoHS/RoHS II compliant

## OUTLINE DIMENSIONS:



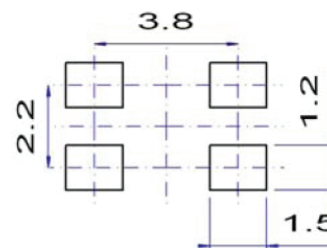
### Pin function

- # 1 crystal connection
- # 2 GND
- # 3 crystal connection
- # 4 GND



Do not design any conductive path between the pattern

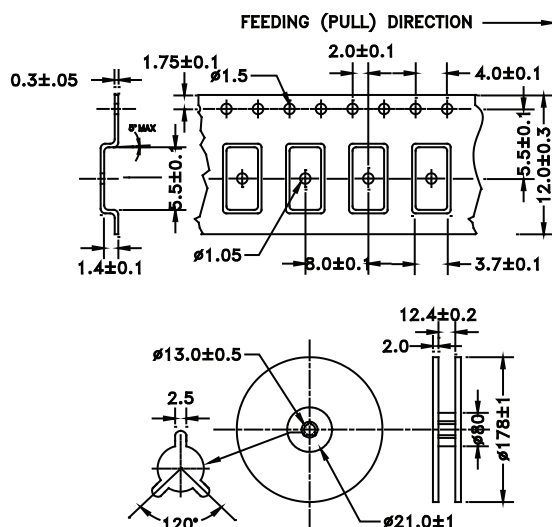
### Example for solder pattern



Dimensions: mm

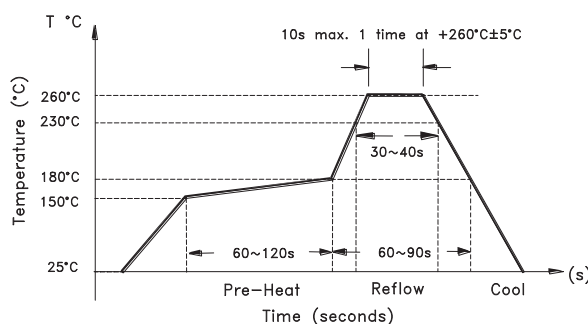
## TAPE & REEL:

1000pcs/reel



Dimensions: mm

## REFLOW PROFILE:



Need a test socket for the ABM3X Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here](#). P/N **AXS-5032-04-07**

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