

# CERAMICS SMD ULTRA MINIATURE QUARTZ CRYSTAL

ABM11

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2.0 x 1.6 x 0.59 mm



**RoHS**  
Compliant



## FEATURES:

- 2.0 x 1.6 x 0.59mm ultra miniature package.
- Suitable for RoHS compliant reflow.
- Seam sealed ceramic package with metal lid assures high precision and reliability.

## APPLICATIONS:

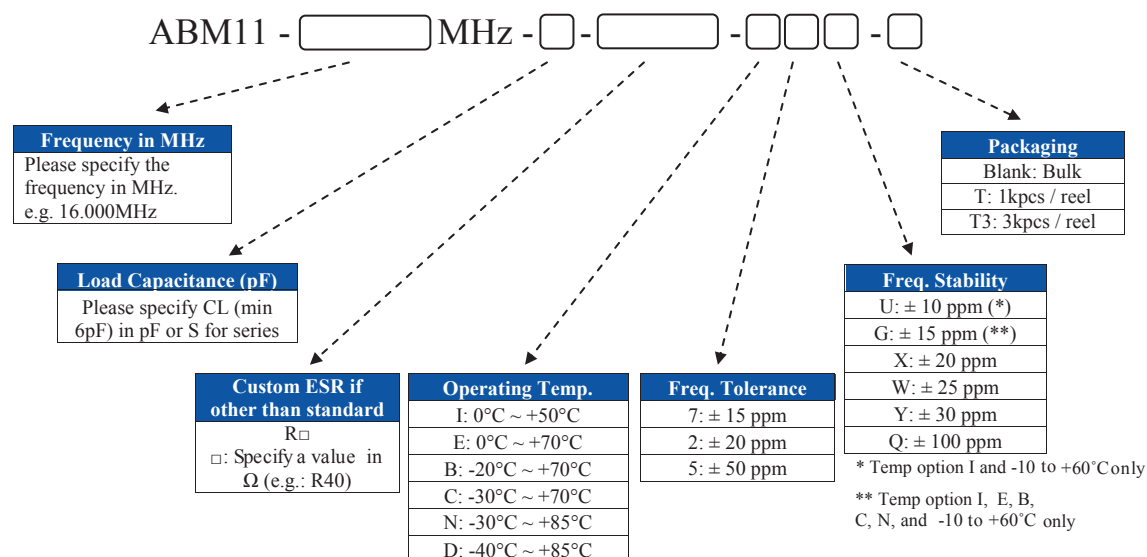
- Cellular telephones, Pagers.
- Communication and Test equipment.
- High Density applications
- PCMCIA and wireless applications.

## STANDARD SPECIFICATIONS:

| Parameters                                                          | Minimum     | Typical | Maximum | Units | Notes                                    |
|---------------------------------------------------------------------|-------------|---------|---------|-------|------------------------------------------|
| Frequency Range                                                     | 18.000      | ----    | 50.000  | MHz   |                                          |
| Operation Mode                                                      | Fundamental |         |         | ----  | 18MHz - 50MHz                            |
| Operating Temperature                                               | -10         | ----    | +60     | °C    | See options                              |
| Storage Temperature                                                 | -40         | ----    | +85     | °C    |                                          |
| Frequency Tolerance @+25°C                                          | -30         | ----    | +30     | ppm   | See options                              |
| Frequency Stability over the Operating Temperature ( ref. to +25°C) | -50         | ----    | +50     | ppm   | See options                              |
| Equivalent series resistance (R1)                                   | ----        | ----    | 120     | Ω     | 18.000~20.999MHz                         |
|                                                                     | ----        | ----    | 100     |       | 21.000~29.999 MHz                        |
|                                                                     | ----        | ----    | 80      |       | 30.000~37.999 MHz                        |
|                                                                     | ----        | ----    | 60      |       | 38.000~50.000 MHz                        |
| Shunt capacitance (C0)                                              | ----        | ----    | 7.0     | pF    |                                          |
| Load capacitance (CL)                                               | ----        | 10      | ----    | pF    | Standard (See options if other than STD) |
| Drive Level                                                         | ----        | 10      | 100     | μW    |                                          |
| Aging                                                               | -5          | ----    | +5      | ppm   | @25°C±3°C<br>First year                  |
| Insulation Resistance                                               | 500         | ----    | ----    | MΩ    | @ 100Vdc ± 15V                           |

## OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)





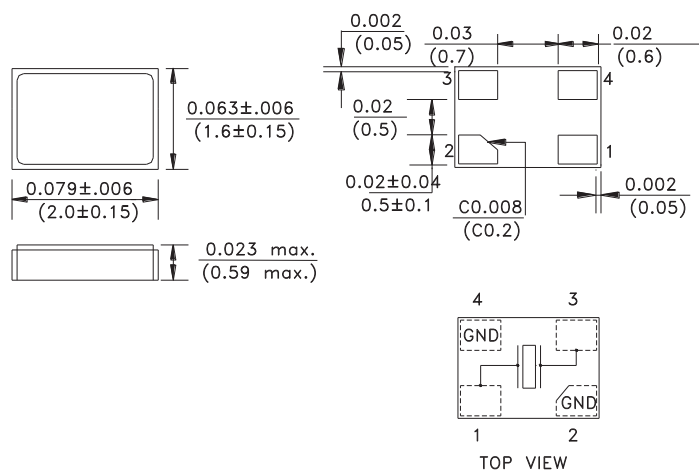
**2.0 x 1.6 x 0.59 mm**

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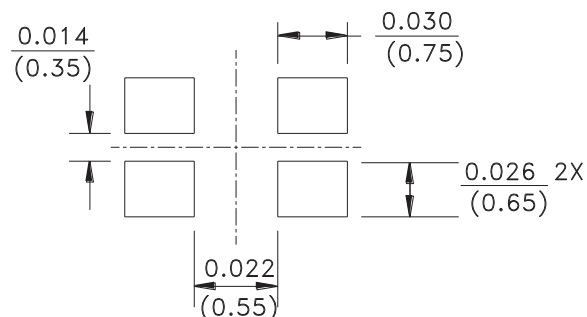
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## OUTLINE DRAWING:



Dimensions: inch (mm)

## Recommended land pattern

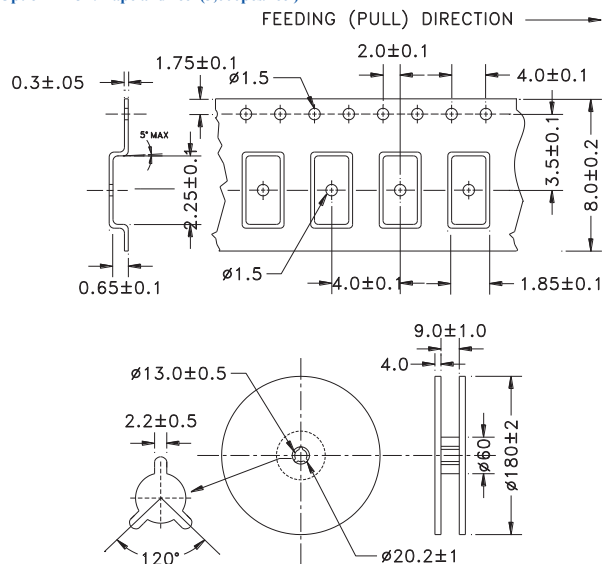


Note: Due to the availability of raw materials, this part may be manufactured with the chamfer on pin 1 or 4. Be advised that this does not affect the electrical characteristics of the crystal in anyway.

**TAPE & REEL:**

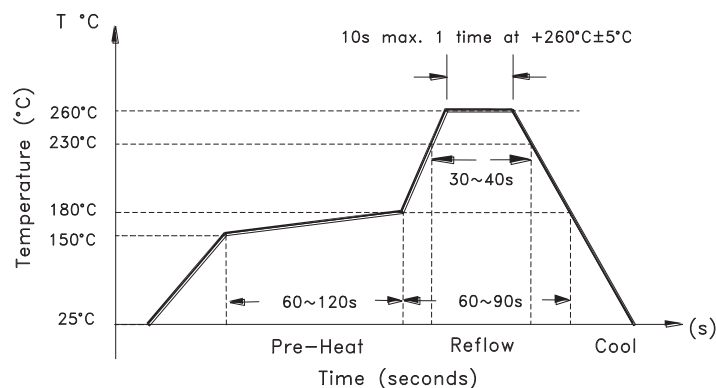
**Option "-T": Tape and reel (1,000pcs/reel)**

**Option "-T3": Tape and reel (3,000pcs/reel)**



**Dimensions: mm**

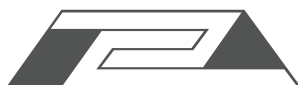
## REFLOW PROFILE:



Need a test socket for the ABM11 Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, **click here**. P/N AXS-2016-04-04C

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