

# CERAMIC SMD ULTRA MINIATURE QUARTZ CRYSTAL

ABM10

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

ABM10

2.5 x 2.0 x 0.5 mm

## FEATURES:

- 2.5 x 2.0 x 0.5mm ultra miniature package
- Suitable for RoHS reflow profile
- Tight stability available  $\pm 10$ ppm over -10 to +60°C
- Seam sealed ceramic package assures high precision and reliability

## APPLICATIONS:

- Blue-tooth, Wireless applications
- Computers, Modems, Microprocessors
- Communication, Test equipment
- High density applications
- PCMCIA
- Portable radios and MP3 players

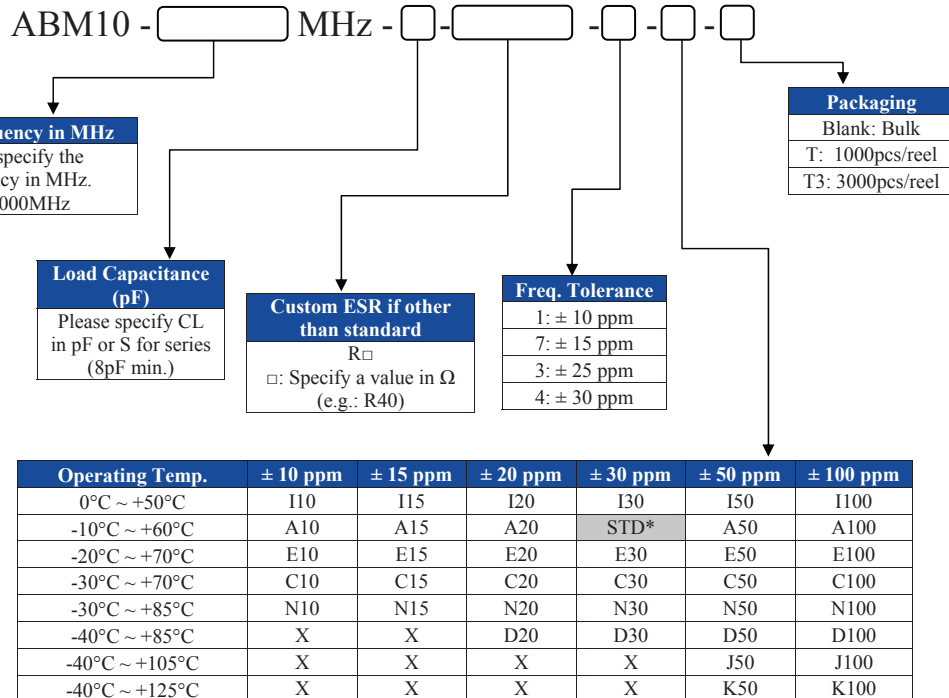
## STANDARD SPECIFICATIONS:

| Parameters                                                          | Minimum           | Typical | Maximum  | Units      | Notes                                    |
|---------------------------------------------------------------------|-------------------|---------|----------|------------|------------------------------------------|
| Frequency Range                                                     | 12.000            |         | 55.000   | MHz        | Fundamental                              |
| Operation Mode                                                      | Fundamental       |         |          |            |                                          |
| Operating Temperature                                               | -10               |         | +60      | °C         | See options                              |
| Storage Temperature                                                 | -40               |         | +125     | °C         |                                          |
| Frequency Tolerance @+25°C                                          |                   |         | $\pm 20$ | ppm        | See options                              |
| Frequency Stability over the Operating Temperature ( ref. to +25°C) |                   |         | $\pm 30$ | ppm        | See options                              |
| Equivalent series resistance (R1)                                   | See table 1 below |         |          | $\Omega$   |                                          |
| Shunt capacitance (C0)                                              |                   |         | 7        | pF         |                                          |
| Load capacitance (CL)                                               | 10                |         |          | pF         | Standard (See options if other than STD) |
| Drive Level                                                         |                   | 10      | 100      | $\mu$ W    |                                          |
| Aging@25°C $\pm 3^\circ$ C                                          |                   |         | $\pm 5$  | ppm        | First year                               |
| Insulation Resistance                                               | 500               |         |          | M $\Omega$ | @ 100Vdc $\pm 15$ V                      |

Table 1 – standard ESR

| Frequency (MHz) | ESR( $\Omega$ ) max. |
|-----------------|----------------------|
| 12.000 – 15.999 | 250                  |
| 16.000 – 19.999 | 150                  |
| 20.000 – 29.999 | 100                  |
| 30.000 – 55.000 | 70                   |

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



\* Please leave blank, as this is the standard/default spec. Contact Abracon for tighter frequency stability

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