

# CERAMIC SMD ULTRA MINIATURE QUARTZ CRYSTAL



ABM10

2.5 x 2.0 x 0.5 mm

ABM10

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



RoHS Compliant

## FEATURES:

- 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 $\pm 3$ °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)

ABM10 -  MHz -  -  -  -

**Frequency in MHz**  
Please specify the frequency in MHz.  
e.g. 16.000MHz

**Load Capacitance (pF)**  
Please specify CL in pF or S for series (8pF min.)

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

**Freq. Tolerance**

1: $\pm 10$ ppm
7: $\pm 15$ ppm
3: $\pm 25$ ppm
4: $\pm 30$ ppm

**Packaging**

Blank: Bulk
T: 1000pcs/reel
T3: 3000pcs/reel

Operating Temp.	$\pm 10$ ppm	$\pm 15$ ppm	$\pm 20$ ppm	$\pm 30$ ppm	$\pm 50$ ppm	$\pm 100$ ppm
0°C ~ +50°C	I10	I15	I20	I30	I50	I100
-10°C ~ +60°C	A10	A15	A20	STD*	A50	A100
-20°C ~ +70°C	X	E15	E20	E30	E50	E100
-30°C ~ +70°C	X	C15	C20	C30	C50	C100
-30°C ~ +85°C	X	N15	N20	N30	N50	N100
-40°C ~ +85°C	X	X	D20	D30	D50	D100
-40°C ~ +105°C	X	X	X	X	J50	J100
-40°C ~ +125°C	X	X	X	X	K50	K100

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

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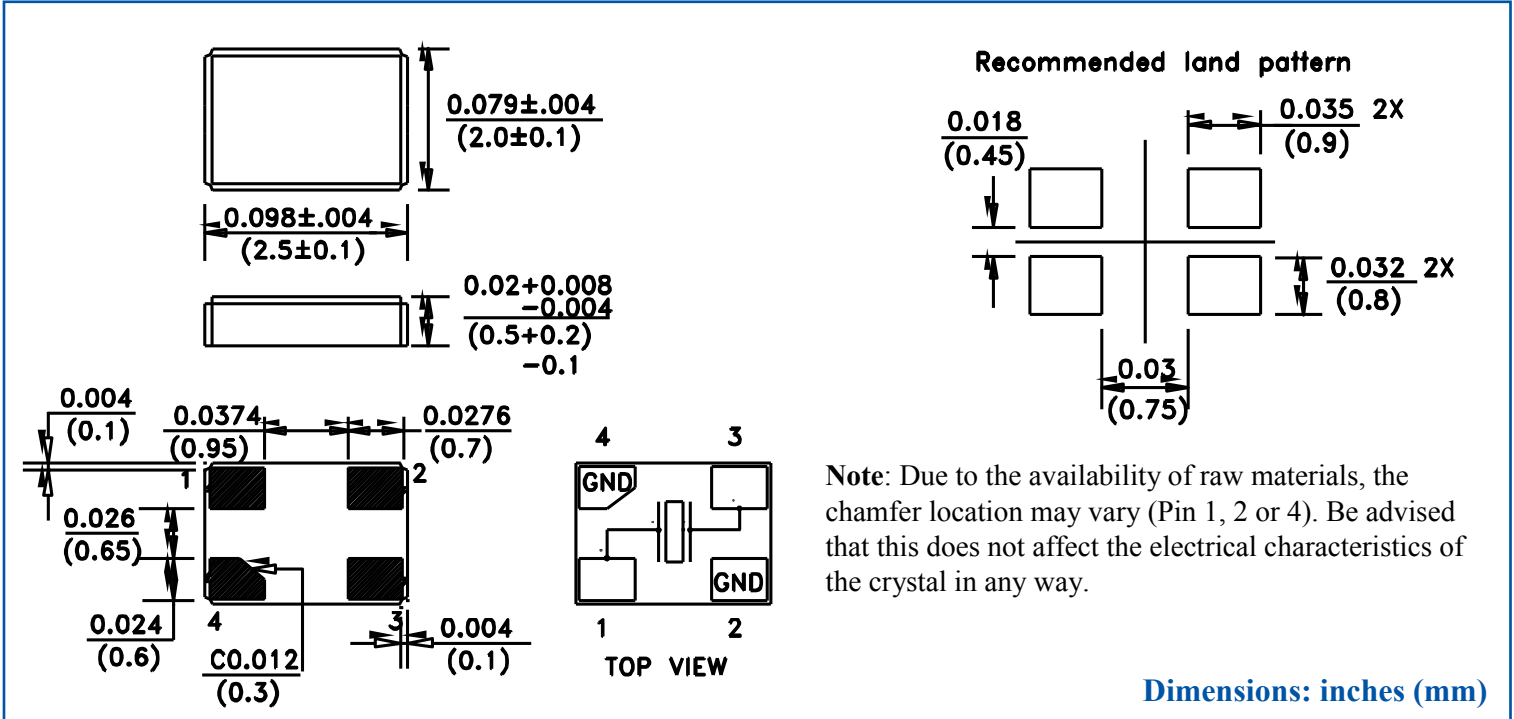
ABM10

2.5 x 2.0 x 0.5 mm

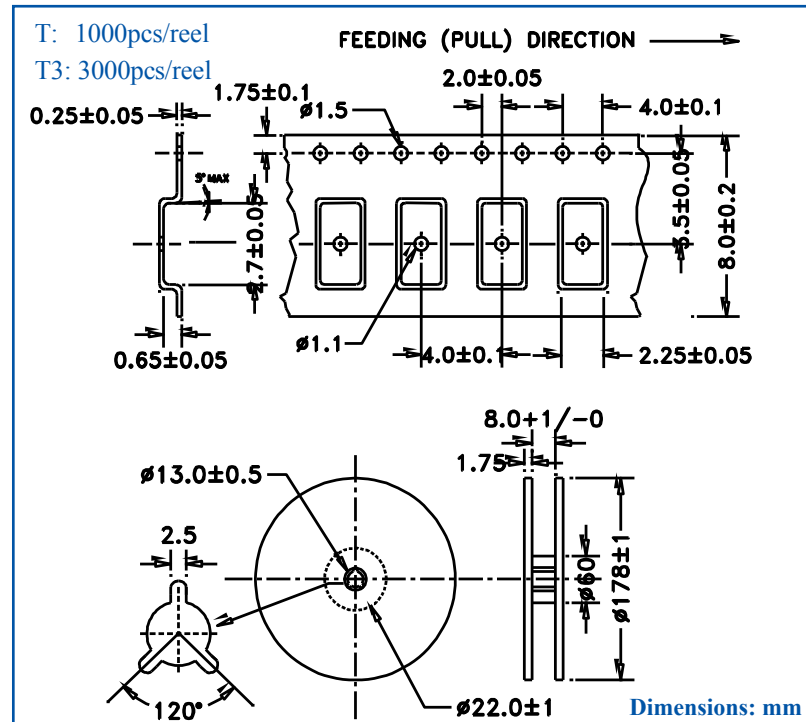


ABM10

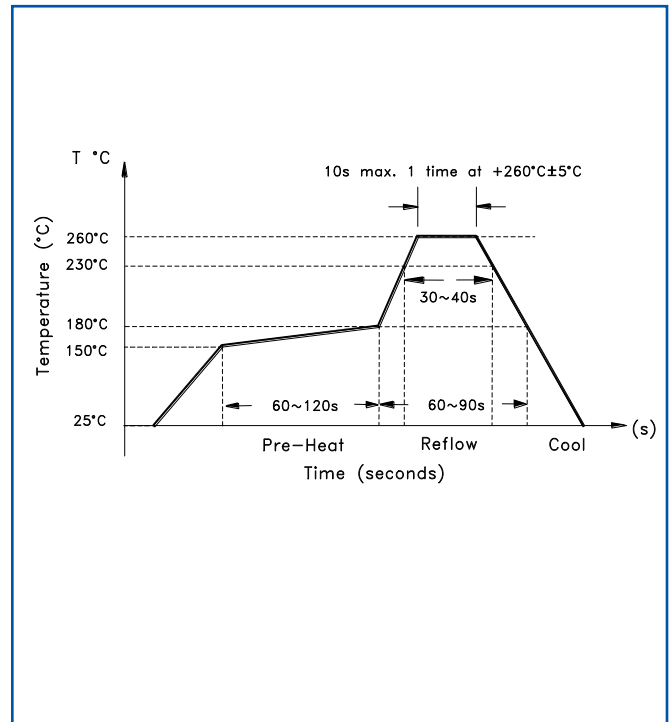
## OUTLINE DRAWING:



## TAPE & REEL:



## REFLOW PROFILE:



Need a test socket for the ABM10 Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here](#). P/N: AXS-2520-04-10

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