CERAMIC SMD ULTRA MINIATURE QUARTZ CRYSTAL

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/RoHS II Compliant

FEATURES:

- 2.5 x 2.0 x 0.5mm ultra miniature package
- Suitable for RoHS reflow profile
- Tight stability available ±10ppm over -10 to +60ºC
- 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	ºC	See options
Storage Temperature	-40		+125	ºC	
Frequency Tolerance @+25ºC			±20	ppm	See options
Frequency Stability over the Operating Temperature (ref. to +25ºC)			±30	ppm	See options
Equivalent series resistance (R1)	See table 1 below			Ω	
Shunt capacitance (C0)			7	pF	
Load capacitance (CL)	10			pF	Standard (See options if other than STD)
Drive Level		10	100	µW	
Aging@25ºC±3ºC			±5	ppm	First year
Insulation Resistance	500			M Ω	@ 100Vdc ± 15V

Table 1 – standard ESR

Frequency (MHz)	ESR(Ω) 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 Ω (e.g.: R40)

Freq. Tolerance
1: ± 10 ppm
7: ± 15 ppm
3: ± 25 ppm
4: ± 30 ppm

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

Operating Temp.	± 10 ppm	± 15 ppm	± 20 ppm	± 30 ppm	± 50 ppm	± 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	E10	E15	E20	E30	E50	E100
-30°C ~ +70°C	C10	C15	C20	C30	C50	C100
-30°C ~ +85°C	N10	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

2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 04.21.15**
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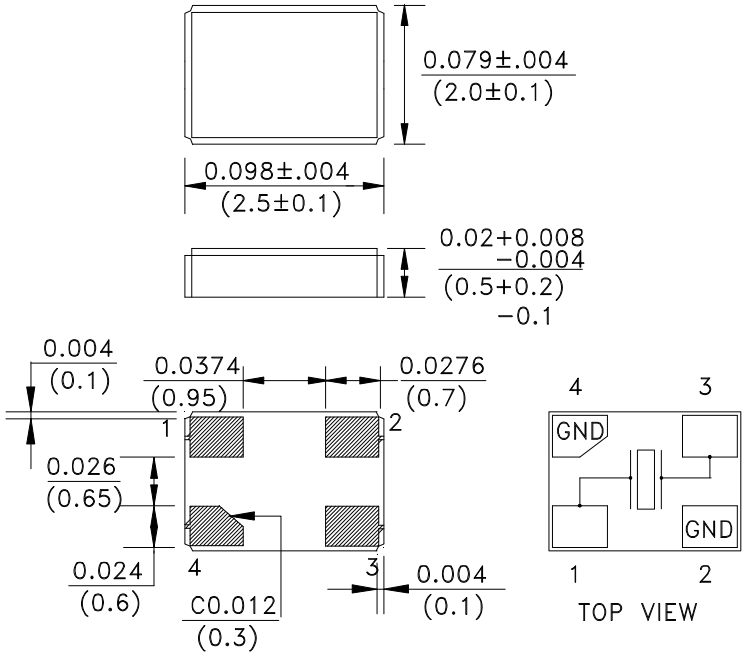
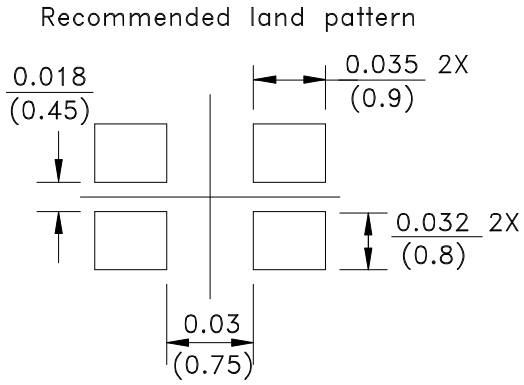
OUTLINE DRAWING:



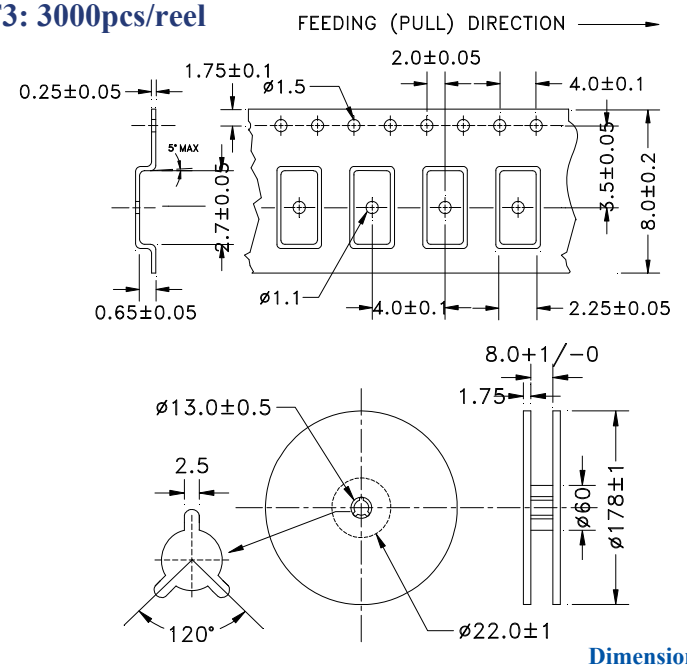


Note: From the top view (marking side), pin #1 is always located at the bottom left corner of the package. This is regardless of the location of the Chamfer, since due to material availability, the Chamfer could be located on pin#1, 2 or 4. Be advised that the Chamfer location has no impact on the electrical performance of the device.

Dimensions: inches (mm)

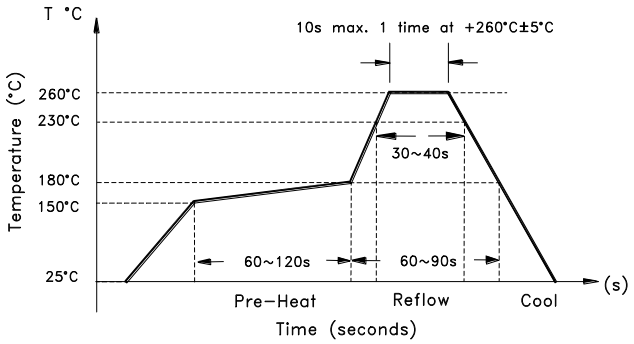
TAPE & REEL:

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



Dimensions: mm

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**

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ABRACON:

ABM10-48.000MHZ-E20-T ABM10-20.000MHZ-E20-T ABM10-40.000MHZ-E20-T ABM10-27.000MHZ-E20-T ABM10-30.000MHZ-E20-T ABM10-25.000MHZ-E20-T ABM10-24.000MHZ-E20-T ABM10-22.1184MHZ-E20-T ABM10-24.576MHZ-E20-T ABM10-24.000MHZ-8-7A15-T ABM10-28.63636MHZ-8-7A15-T ABM10-32.000MHZ-8-7A15-T ABM10-26.000MHZ-7-A15-T ABM10-32.000MHZ-7-A15-T ABM10-40.000MHZ-8-7A15-T ABM10-19.200MHZ-E20-T ABM10-18.432MHZ-E20-T ABM10-16.384MHZ-E20-T ABM10-16.000MHZ-E20-T ABM10-16.3676MHZ-E20-T ABM10-16.000MHZ-D30-T3 ABM10-16.3676MHZ-D30-T3 ABM10-16.384MHZ-D30-T3 ABM10-18.432MHZ-D30-T3 ABM10-19.200MHZ-D30-T3 ABM10-20.000MHZ-D30-T3 ABM10-22.1184MHZ-D30-T3 ABM10-24.000MHZ-D30-T3 ABM10-24.576MHZ-D30-T3 ABM10-25.000MHZ-D30-T3 ABM10-26.000MHZ-D30-T3 ABM10-27.000MHZ-D30-T3 ABM10-30.000MHZ-D30-T3 ABM10-32.000MHZ-D30-T3 ABM10-40.000MHZ-D30-T3 ABM10-48.000MHZ-D30-T3 ABM10-48.000MHz-18-E30-T3 ABM10-24.000MHz-18-E30-T3 ABM10-25.000MHz-18-E30-T3 ABM10-38.400MHz-18-E30-T3 ABM10-40.000MHz-18-E30-T3 ABM10-14.31818MHz-18-E30-T3 ABM10-16.000MHz-18-E30-T3 ABM10-20.000MHz-18-E30-T3 ABM10-165-38.400MHz-T3 ABM10-27.120MHZ-8-A10-T ABM10-26.000MHZ-20-R30-D50-T ABM10-25.000MHZ-18-R60-4-D30-T ABM10-16.000MHZ-D30-T ABM10-25.000MHZ-E30-T