

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
Compliant



2.5 x 2.0 x 0.5 mm

FEATURES:

- Suitable for RoHS reflow profile
- Tight stability available ± 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			± 20	ppm	See options
Frequency Stability over the Operating Temperature (ref. to +25°C)			± 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	μ W	
Aging@25°C ± 3 °C			± 5	ppm	First year
Insulation Resistance	500			M Ω	@ 100Vdc ± 15 V

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	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

ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale

Revised: 01.16.13

30332 Esperanza, Rancho Santa Margarita, California 92688

tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

ABM10

2.5 x 2.0 x 0.5 mm

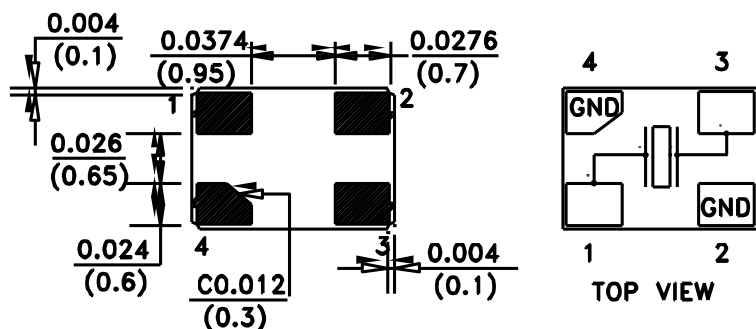


RoHS
Compliant

2.5 x 2.0 x 0.5 mm

Technical drawing of a rectangular plate with dimensions and tolerances:

- Top view:
 - Width: 0.079 ± 0.004 (tolerance 2.0 ± 0.1)
 - Length: 0.098 ± 0.004 (tolerance 2.5 ± 0.1)
- Side view:
 - Thickness: $0.02 + 0.008$ (tolerance $0.5 + 0.2$)
 - Bottom thickness: -0.004 (tolerance -0.1)



Note: Due to the availability of raw materials, the chamfer location may vary (Pin 1, 2 or 4). Be advised that this does not affect the electrical characteristics of the crystal in any way.

Dimensions: inches (mm)

REFLOW PROFILE:

Technical drawing of a circular mechanical part, likely a flange or base plate, showing dimensions in millimeters (mm).

Top View (Circular):

- Overall diameter: $\phi 22.0 \pm 1$
- Inner circular feature diameter: $\phi 13.0 \pm 0.5$
- Radial distance from center to the inner feature: 2.5
- Angular spacing between features: 120°

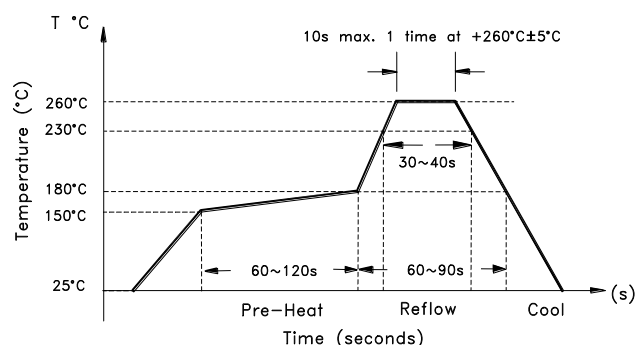
Side View (Cross-section):

- Overall thickness: $8.0 +1 / -0$
- Top flange thickness: 1.75
- Inner hole diameter: $\phi 1.5$
- Inner hole depth: 4.0 ± 0.1
- Inner hole diameter at the bottom: $\phi 1.1$
- Distance between inner holes: 4.0 ± 0
- Distance from the inner hole to the outer edge: 2.25 ± 0.05
- Outer diameter at the bottom: $\phi 17.8 \pm 1$
- Inner hole diameter at the bottom: $\phi 6.0$

Feeding (Pull) Direction: Indicated by an arrow pointing to the right.

Dimensions:

Dimensions: mm



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

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 01.16.13**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com