

LOW FREQUENCY CERAMIC SURFACE MOUNT MICROPROCESSOR CRYSTAL



ABC2

RoHS compliant with exemption of Pb in glass
(exempt per RoHS 2002/95/EC Annex (5))

RoHS
Compliant

11.8 x 5.5 x 1.9mm

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

FEATURES:

- Low frequency in small size SMD
- 1.9mm height ideal for high density circuit boards
- Ceramic package offers excellent environmental & heat resistance
- Extended temperature -40°C to +85°C for industrial applications
- Suitable for RoHS compliant reflow

APPLICATIONS:

- Wide range in communication & measuring equipment
- Commercial & Industrial applications

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	3.500		30.000	MHz	Fundamental, AT
	30.000		70.000		3 rd Overtone, AT
Operation Mode	Fundamental or 3 rd Overtone				
Operating Temperature	-10		+60	°C	Please see available options under Part Identification section
Storage Temperature	-55		+125	°C	
Frequency Tolerance @+25°C	-50		+50	ppm	See options
Frequency Stability over the Operating Temperature -10 °C to +60 °C (ref. to +25°C)	-50		+50	ppm	Standard for below 6.0MHz (-10 °C to +60 °C) See options for other temperature
	-30		+30		Standard for 6.0MHz and above; (-10 °C to +60 °C) See options for other temperature
Equivalent series resistance (R1)	See table 1 below			Ω	
Shunt capacitance (C0)			7	pF	
Load capacitance (CL)		18		pF	See options
Drive Level			100	μW	
Aging@25°C±3°C			±5	ppm	First year
Insulation Resistance	500			M Ω	@ 100Vdc ± 15V

Table 1

Frequency Ranges	Operation mode	ESR (max)
3.200MHz ~ 3.499MHz	Fundamental	200 Ω
3.500MHz ~ 3.999MHz	Fundamental	140 Ω
4.000MHz ~ 4.399MHz	Fundamental	120 Ω
4.400MHz ~ 4.899MHz	Fundamental	100 Ω
4.900MHz ~ 5.999MHz	Fundamental	80 Ω
6.000MHz ~ 6.999MHz	Fundamental	60 Ω
7.000MHz ~ 7.999MHz	Fundamental	50 Ω
8.000MHz ~ 10.999MHz	Fundamental	45 Ω
11.000MHz ~ 11.999MHz	Fundamental	40 Ω
12.000MHz ~ 14.999MHz	Fundamental	35 Ω
15.000MHz ~ 36.000MHz	Fundamental	30 Ω
27.000MHz ~ 70.000MHz	3rd OT	100Ω

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OPTIONS AND PART IDENTIFICATION: (Left blank if standard)

ABC2 - MHz - - - - - -

Frequency in MHz
Please specify the frequency in MHz.
e.g. 14.31818MHz

Load Capacitance (pF)
Please specify CL in pF or S for series

Custom ESR if other than standard
R
□: Specify a value in Ω
(e.g.: R40)

Operating Temp.
Blank: -10°C ~ +60°C
B: -20°C ~ +70°C
D**: -40°C ~ +85°C

Freq. Tolerance
Blank: ± 50 ppm
2: ± 20 ppm
4: ± 30 ppm

Packaging
Blank: Bulk
T: Tape & Reel (1k pcs /reel)

Freq. Stability
Blank: Standard
G*: ± 15 ppm
W*: ± 25 ppm
Y: ± 30 ppm
H: ± 35 ppm
Z: ± 50 ppm
Q: ± 100 ppm

* Option B and -10 ~60°C only

** Option Y, Z and Q only for $F \geq 6.0$ MHz; Option Z and Q only for $F < 6.0$ MHz



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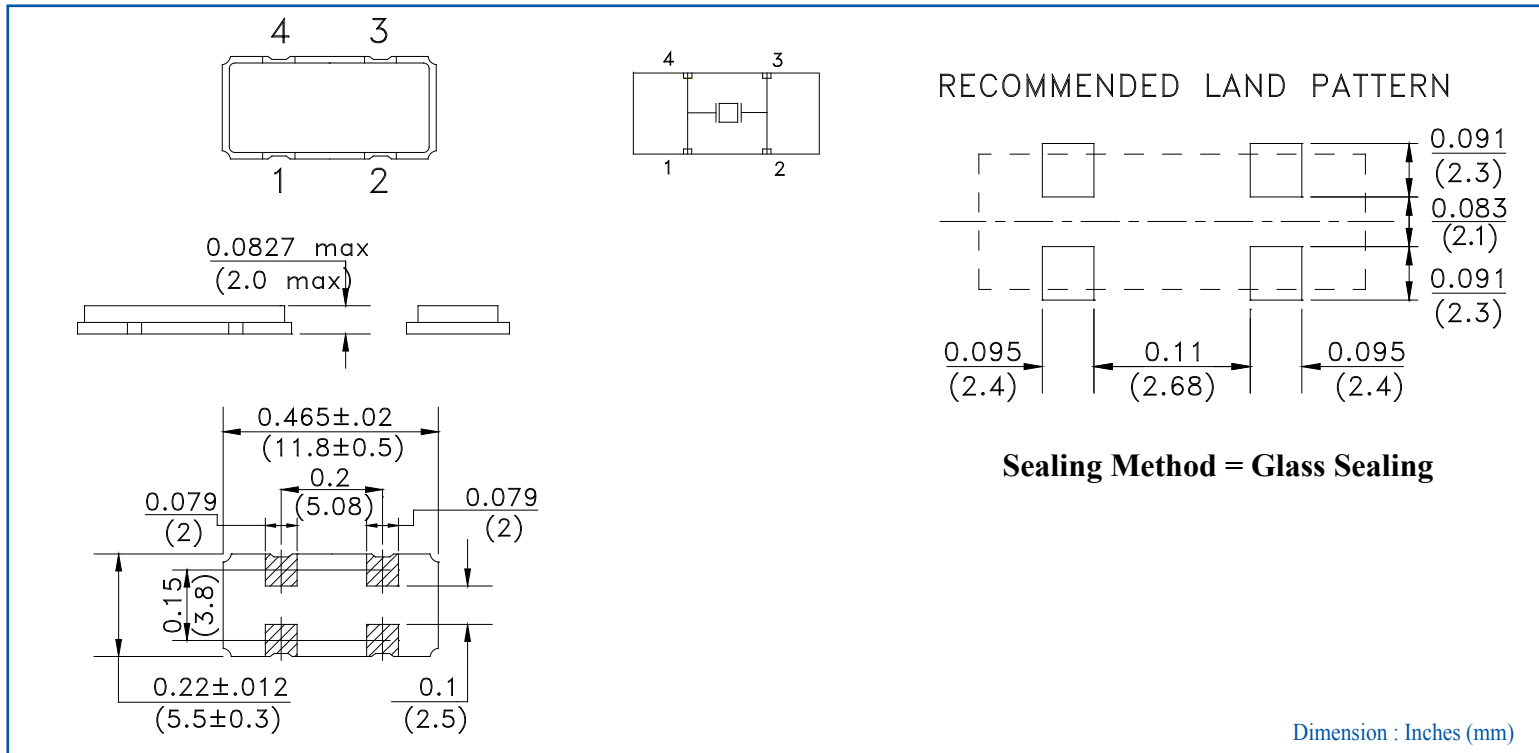
11.8 x 5.5 x 1.9mm

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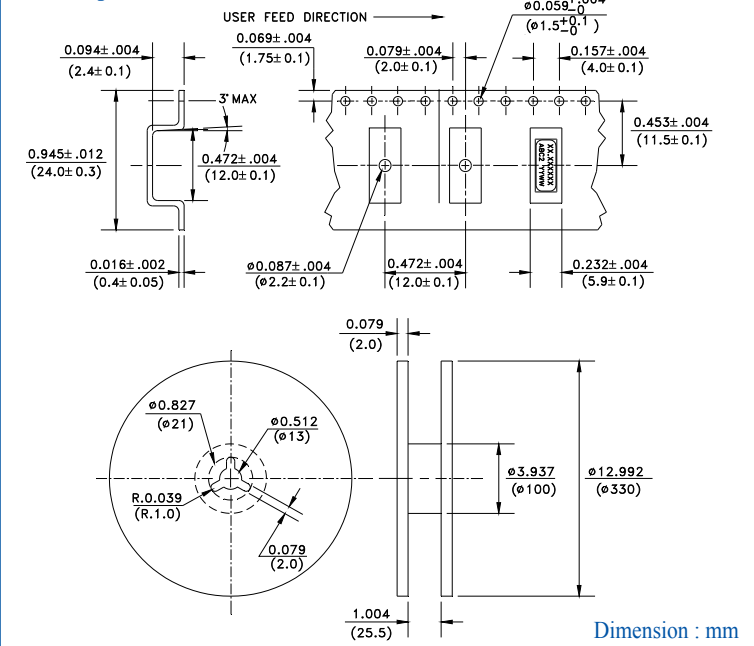
RoHS
Compliant

OUTLINE DRAWING:

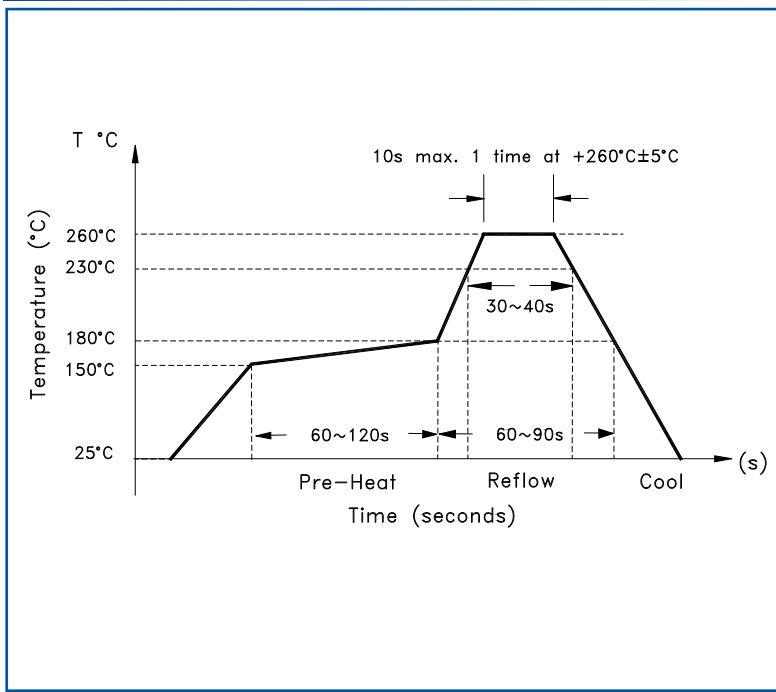


TAPE & REEL:

T: 1,000 pcs/reel



REFLOW PROFILE:



Need a test socket for the ABC2 Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, **click here**. P/N AXS-1155-04-01

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