

# LOW FREQUENCY CERAMIC SURFACE MOUNT MICROPROCESSOR CRYSTAL



11.6 x 5.5 x 2.0 mm

ABC2

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

**RoHS**  
Compliant

## FEATURES:

- Low frequency in small size SMD
- 2.0mm height ideal for high density circuit boards
- Ceramic package offers excellent environmental & heat resistance
- Extended temperature -40°C to +85°C for industrial applications

## APPLICATIONS:

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

## STANDARD SPECIFICATIONS:

PARAMETERS	
ABRACON P/N	ABC2
Frequency Range	3.500 MHz to 30.000 MHz
Operation Mode	Fundamental, AT
Operating Temperature	-10°C to + 60°C (see options)
Storage Temperature	-55°C to +125°C
Frequency Tolerance at +25°C	±50ppm
Frequency stability over the operating temp (Ref to +25° C):	below 6.0MHz: ±50ppm above 6.0MHz: ±30ppm
Equivalent Series Resistance	See Table 1
Shunt Capacitance C0	7pF max
Load Capacitance CL	18pF (see options)
Drive Level	100 µW max.
Aging (first year) 25°C ± 3°C	± 5 ppm max.
Insulation Resistance	500 MΩ min. at 100 Vdc ±15V

TABLE 1

Frequency (MHz)	ESR
3.500 - 3.999	200Ω max
4.000 - 5.999	150Ω max
6.000 - 9.999	100Ω max
10.00 - 13.99	80Ω max
14.00 -30.00	50Ω max

## OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ABC2 - Frequency -  -  - R -  -  -  -

Load Capacitance	
10	10pF
12	12pF
16	16pF
18	18pF
20	20pF
22	22pF

Operating Temp.	
B	-20°C to +70°C
D	-40°C to +85°C

Packaging	
T	Tape and Reel

Freq. Tolerance	
4	± 30 ppm

Freq. Stability	
W	± 25 ppm
Y	± 30 ppm (*)
Z	± 50 ppm (**)
Q	± 100 ppm

**ESR**  
Please specify ESR in ohms. (RXXX)

(\*) Standard for above 6.0MHz

(\*\*) Standard for below 6.0MHz



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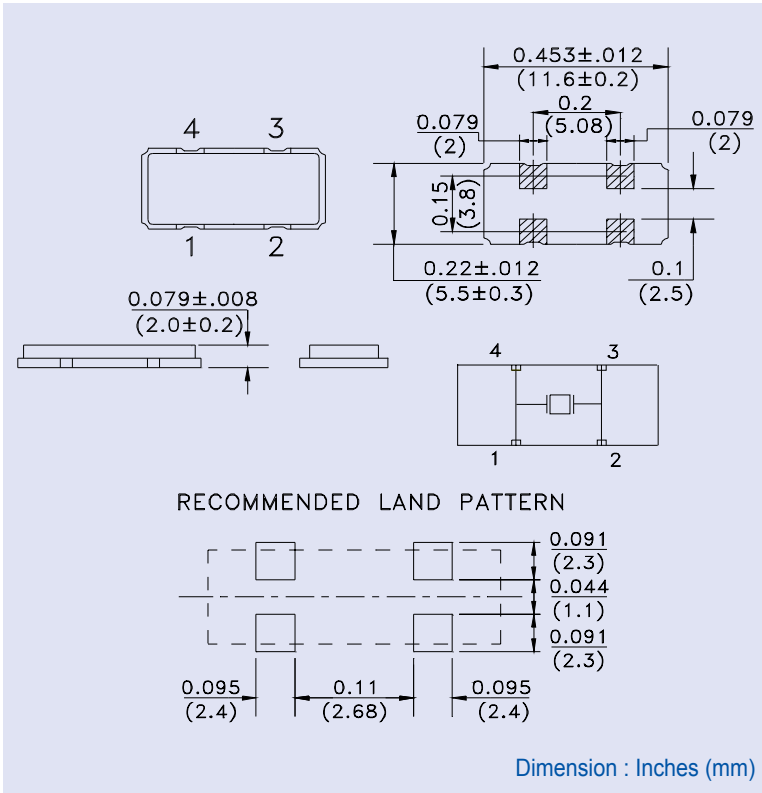
11.6 x 5.5 x 2.0 mm

ABC2

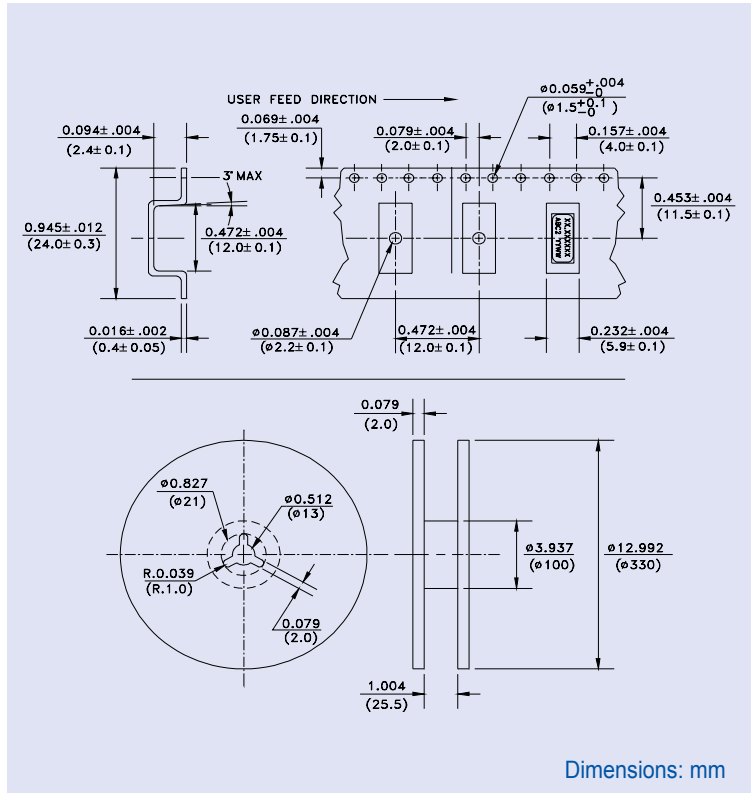
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## OUTLINE DRAWING:



## TAPE & REEL: T= tape and reel (2,000pcs/reel)



## REFLOW PROFILE:

