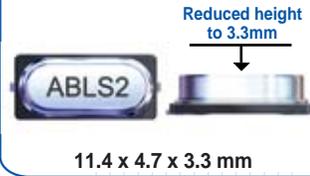


# HC/49US (AT49) LOW PROFILE SURFACE MOUNT MICROPROCESSOR CRYSTAL



ABLS2



## FEATURES:

- Suitable for reflow
- Low height reduced to 3.3mm
- Suitable for thin equipment
- Tight stability & extended temperature

## APPLICATIONS:

- Computers, Modems, Microprocessors
- Automotive and Industrial \*
- Wireless Applications

## STANDARD SPECIFICATIONS:

PARAMETERS	
ABRACON P/N	ABLS2 Series
Frequency	3.579545 MHz to 75 MHz
Operation Mode	AT cut (Fundamental or 3rd OT) or BT cut (See options) 3.579545MHz - 24.0MHz (Fundamental) (Standard) 24.01 - 75.00MHz (3rd- Overtone) (Standard) 24.01MHz - 50.00MHz (Fund. AT or BT) (See options)
Operating Temperature	0°C to + 70°C (see options)
Storage Temperature	- 55°C to + 125°C
Frequency Tolerance at +25°C	± 50 ppm max. (see options)
Frequency Stability over the Operating Temp. (Ref to +25°C)	± 50 ppm max. (see options)
Equivalent Series Resistance	See Table 1
Shunt Capacitance C <sub>0</sub>	7pF max.
Load Capacitance C <sub>L</sub>	18pF (see options)
Drive Level	1 mW max., 100µW typical
Aging at 25°C ± 3°C Per Year	± 5ppm max.
Insulation Resistance	500 M Ω min at 100Vdc ± 15V
Drive level dependency (DLD)	from 1µW to 500µW (minimum 7 points tested)

TABLE 1: ESR

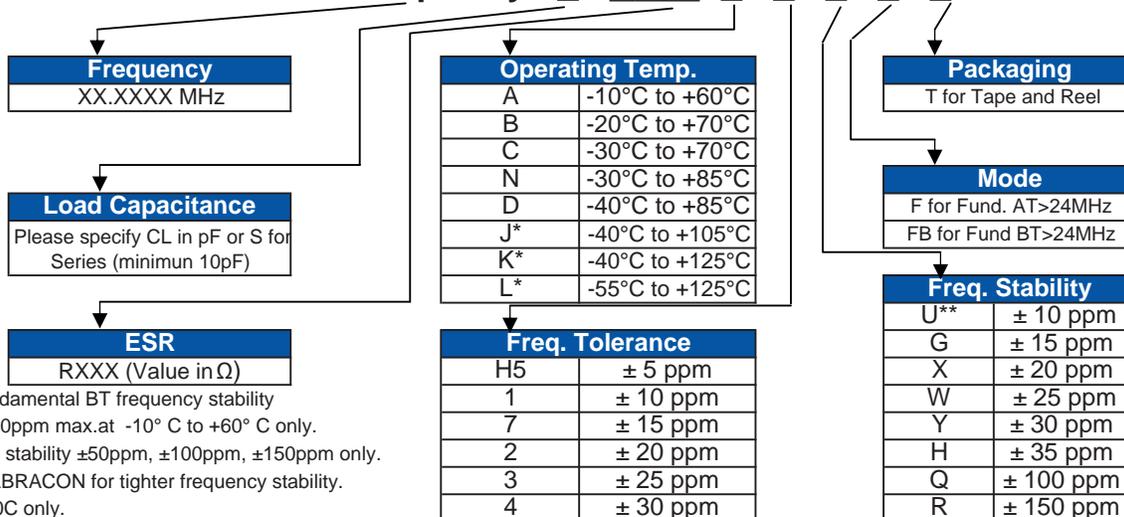
FREQUENCY (MHz)	ESR ( ? )
3.579 - 4.999 (Fund.)	180
5.000 - 5.999 (Fund.)	120
6.000 - 7.999 (Fund.)	100
8.000 - 8.999 (Fund.)	80
9.000 - 9.999 (Fund.)	60
10.000 - 15.999 (Fund.)	50
16.000 - 50.000 (Fund.)	40
24.01 - 31.999 (3rd O/T)	100
32.000 - 75.00 (3rd O/T)	80

- Change in frequency (Maximum - Minimum) over DLD range < ±10ppm
- Change in ESR (Maximum - Minimum) over DLD range < 25% of Max ESR value
- Maximum ESR over DLD range < Max ESR value

## OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ABLS2 - Frequency - □ - R□□□ - □ - □ - □ - □ - □



NOTE: Fundamental BT frequency stability ± 100ppm max.at -10° C to +60° C only.  
\* Frequency stability ±50ppm, ±100ppm, ±150ppm only. Contact ABRACON for tighter frequency stability.  
\*\* -10 to +60C only.

