

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

ABLS3



11.5 x 4.8 x 2.5 mm



**RoHS**  
Compliant

## 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   | ABLS3 Series  |
|---|---|
| Frequency   | 3.579545 MHz to 70 MHz  |
| Operation Mode  | AT strip (see options)<br>3.579545 MHz - 24.0 MHz (Fundamental)<br>24.01 - 50.00 MHz (Fund. AT or BT)<br>24.01 - 70.00 MHz (3rd - Overtone) |
| 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 MΩ min at 100Vdc ± 15V  |
| Drive level dependency (DLD)                                | from 1µW to 500µW (minimum 7 points tested)   |

TABLE 1: ESR

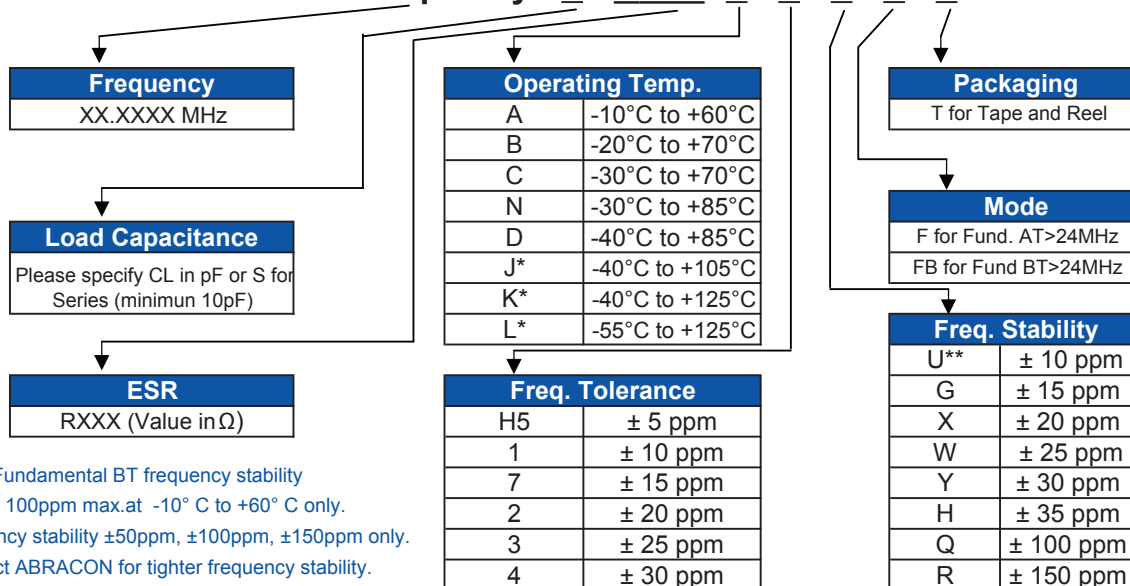
| FREQUENCY (MHz)          | ESR (Ω) |
|--------------------------|---------|
| 3.579 - 4.999 (Fund.)    | 180     |
| 5.000 - 5.999 (Fund.)    | 120     |
| 6.000 - 7.999 (Fund.)    | 100     |
| 8.000 - 8.999 (Fund.)    | 80      |
| 9.000 - 9.999 (Fund.)    | 60      |
| 10.000 - 15.999 (Fund.)  | 50      |
| 16.000 - 50.000 (Fund.)  | 40      |
| 24.01 - 31.999 (3rd O/T) | 100     |
| 32.000 - 70.00 (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:

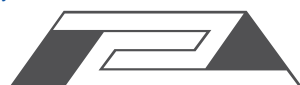
(Left blank if standard)

ABLS3 - 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.

ABRACON IS  
ISO 9001 / QS 9000  
CERTIFIED



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CORPORATION

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