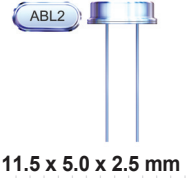


HC/49US (AT49) MICROPROCESSOR CRYSTAL

ABL2 Series



RoHS
Compliant



FEATURES:

- Reduced height at 2.5mm
- High reliability & Low Cost
- Tight stability & extended temperature
- Proven resistance welded metal package

APPLICATIONS:

- Home electronics
- Computers, modems, and communications
- Automotive and industrial
- High-precision TCXO and clock applications
- Microprocessors

STANDARD SPECIFICATIONS:

PARAMETERS	
ABRACON P/N	ABL2 Series
Frequency	3.579545 MHz to 70 MHz
Operation Mode	AT cut (Fundamental or 3rd OT) or BT cut (See options) 3.579545MHz - 24.0MHz (Fundamental) (Standard) 24.01 - 70.00MHz (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 (R1)	See Table 1
Shunt Capacitance C ₀	7pF max.
Load Capacitance C _L	18pF (see options)
Drive Level	1 mW max., 100µW typical
Aging at 25°C Per Year	± 5ppm max.
Insulation Resistance	500 MΩ min at 100Vdc ± 15V
Drive level dependency (DLD):	Minimum 7 points tested: from 1µW to 500µW. Change in frequency (Max - Min) over DLD range < ±10ppm. Change in ESR (Max - Min) over DLD range < 25% of Max ESR value. Maximum ESR over DLD range < Max ESR value.

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

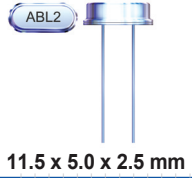


HC/49US (AT49) MICROPROCESSOR CRYSTAL

ABL2 Series



RoHS
Compliant



OPTIONS AND PART IDENTIFICATION

(Left blank if standard)

ABL2- Frequency - - R - - - - - - - -

Frequency
XX.XXXX MHz

Load Capacitance
Please specify CL in pF or S for Series (minimum 10pF)

ESR
RXXX (Value in Ω)

Operating Temp.	
A	-10°C to +60°C
B	-20°C to +70°C
C	-30°C to +70°C
N	-30°C to +85°C
D	-40°C to +85°C
J*	-40°C to +105°C
K*	-40°C to +125°C
L*	-55°C to +125°C

Freq. Tolerance	
H5	± 5 ppm
1	± 10 ppm
7	± 15 ppm
2	± 20 ppm
3	± 25 ppm
4	± 30 ppm

Freq. Stability	
U**	± 10 ppm
G	± 15 ppm
X	± 20 ppm
W	± 25 ppm
Y	± 30 ppm
H	± 35 ppm
Q	± 100 ppm
R	± 150 ppm

Packaging	
T	Tape & Reel
P	Foam
TRAY	Tray

Value Added	
I	Insulator Tab
V	Vinyl Sleeve
L2	Middle 3rd lead
QXX	Trimmed leads for 0.15" length
Q15	

Mode	
F	Fund. AT>24MHz
FB	Fund BT>24MHz

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.



HC/49US (AT49) MICROPROCESSOR CRYSTAL

ABL2 Series

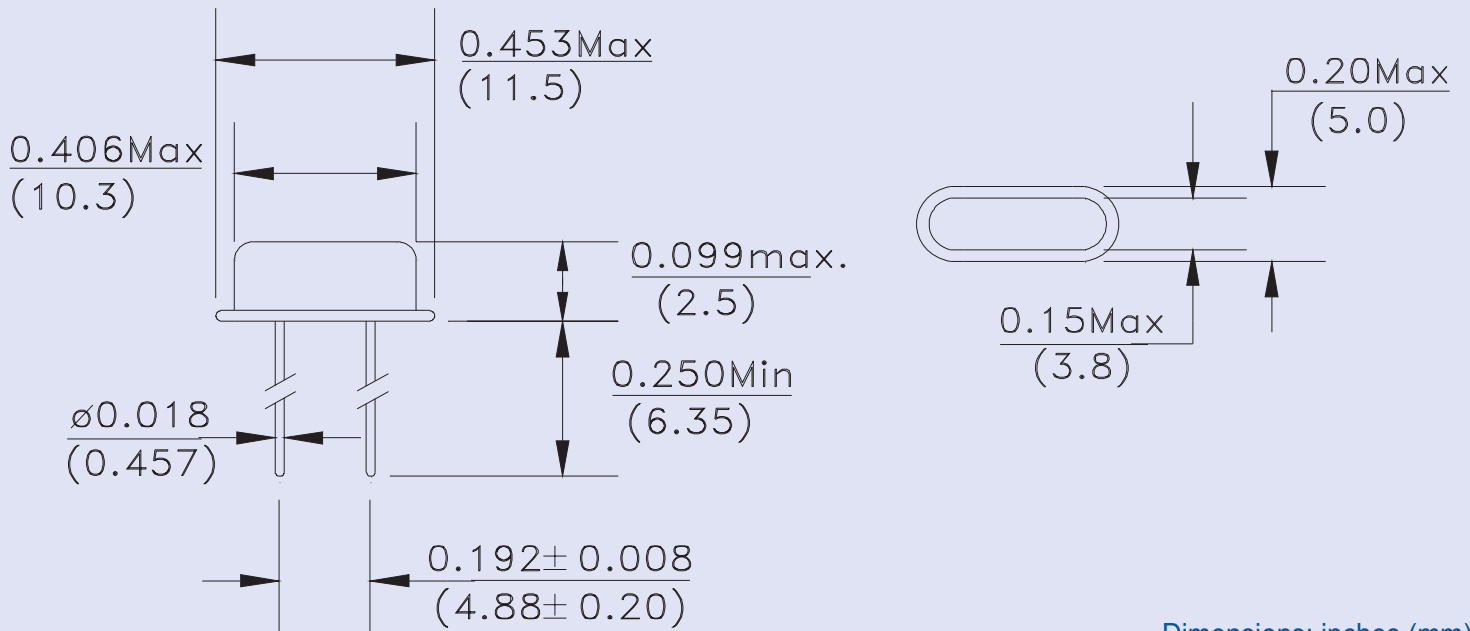


RoHS
Compliant

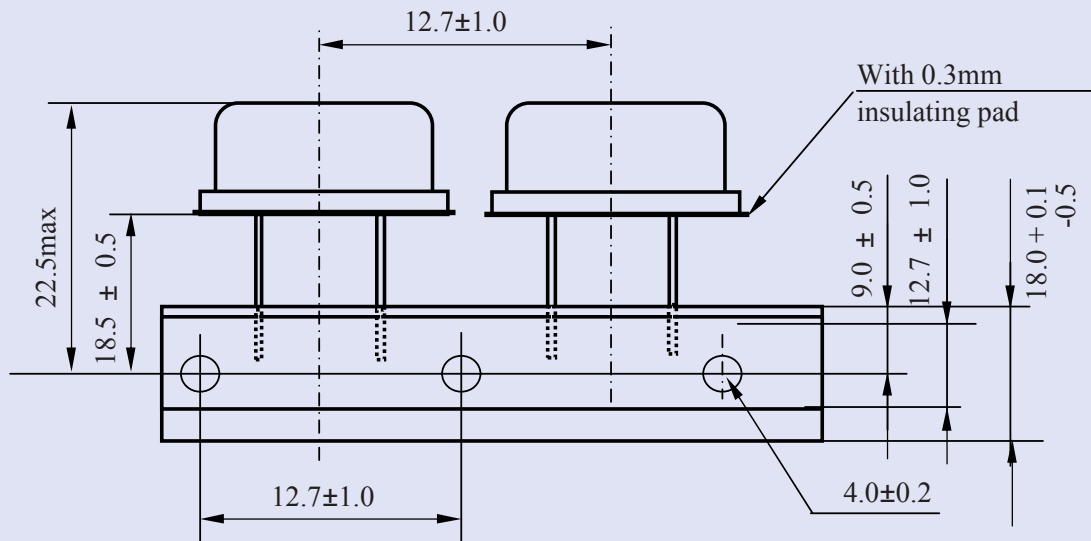


11.5 x 5.0 x 2.5 mm

OUTLINE DRAWING:



TAPE & REEL: T = Tape and reel 1,000pcs/reel



Dimensions: mm

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 IS
ISO 9001 / QS 9000
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 09.01.10**

30332 Esperanza, Rancho Santa Margarita, California 92688

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