

HC49/US (AT49) LOW PROFILE SMD MICROPROCESSOR CRYSTAL



11.4 x 4.7 x 2.5/2.6mm

ABLS3

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



**RoHS
Compliant**

FEATURES:

- Suitable for RoHS compliant reflow
- Low height reduced to 2.5/2.6mm
- Tight stability & extended temperature options

APPLICATIONS:

- Computers, Modems, Microprocessors
- Wireless Applications

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	3.579545	-----	24.000000	MHz	Fundamental AT (Standard)
	24.000001	-----	50.000000		Fundamental AT or BT (See options)
	24.000001	-----	70.000000		3 rd Overtone (Standard)
Operation Mode	Fundamental or 3 rd Overtone				
Operating Temperature	0	-----	+70	°C	See options
Storage Temperature	-55	-----	+125	°C	
Frequency Tolerance @+25°C	-50	-----	+50	ppm	See options
Frequency Stability over the Operating Temperature (ref. to +25°C)	-50	-----	+50	ppm	See options (For BT cut, ±100ppm max.at -10° C to +60° C only)
Equivalent series resistance (R1)	See table 1 below			Ω	
Shunt capacitance (C0)	-----	-----	7	pF	
Load capacitance (CL)	-----	18	-----	pF	Standard (See options if other than STD)
Drive Level	-----	100	1000	μW	
Aging	-5	-----	+5	ppm	@25°C±3°C First year
Insulation Resistance	500	-----	-----	MΩ	@ 100Vdc ± 15V
Drive level dependency (DLD)	Minimum 7 points tested: from 1μW to 500μW. 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.				

TABLE 1: ESR

FREQUENCY (MHz)	ESR (Ω)
3.579545 - 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



HC49/US (AT49) LOW PROFILE SMD MICROPROCESSOR CRYSTAL

ABLS3



RoHS
Compliant

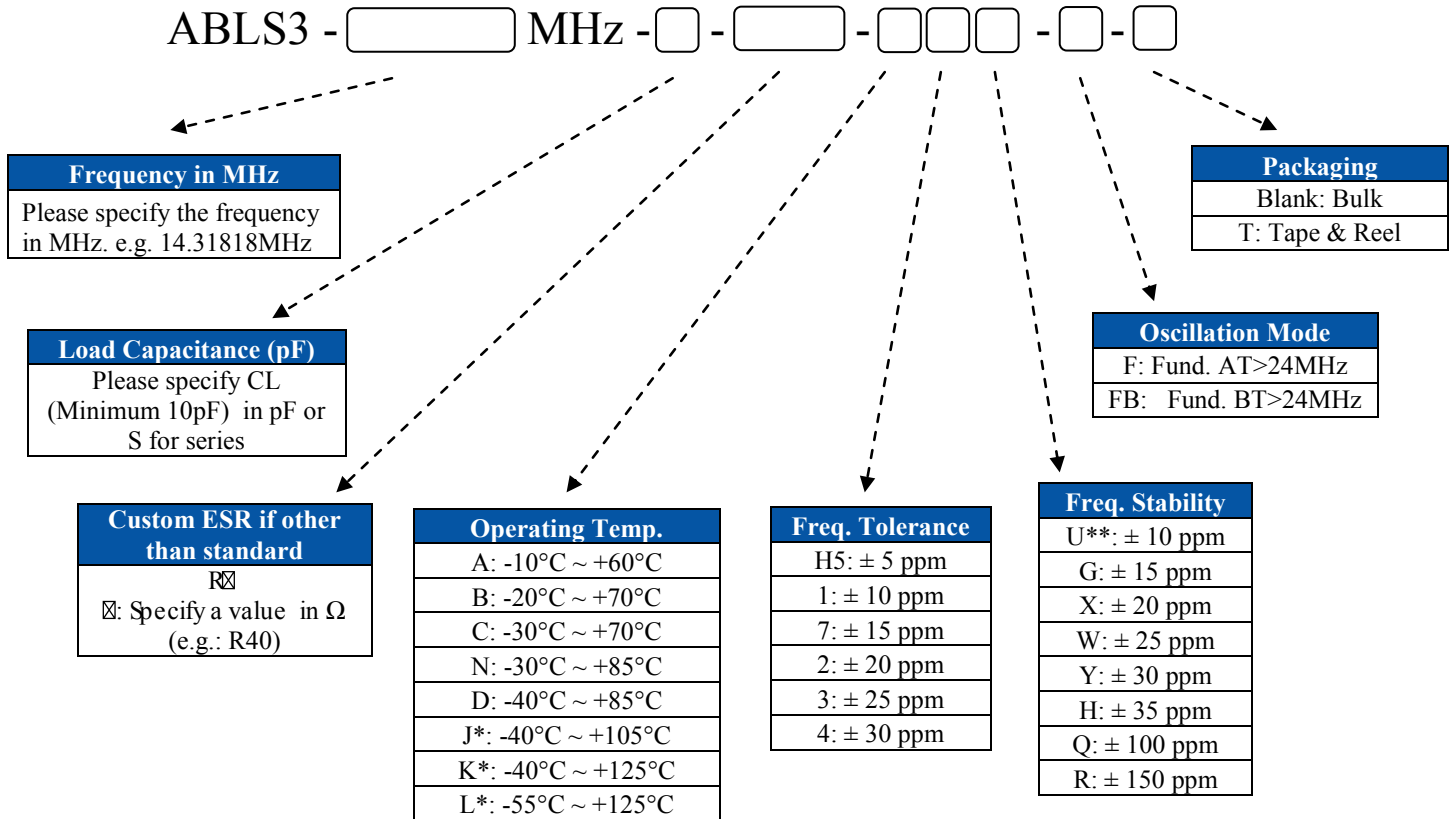


Reduced height
to 2.5/2.6mm

11.4 x 4.7 x 2.5/2.6mm

➤ OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

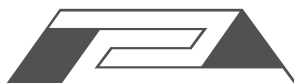


NOTE: Fundamental BT frequency stability ± 100ppm max. at -10° C to +60° C only.

* Frequency stability ±50ppm, ±100ppm, ±150ppm only.

** -10 to +60C only.

Contact ABRACON for tighter frequency stability.



HC49/US (AT49) LOW PROFILE SMD MICROPROCESSOR CRYSTAL

ABLS3



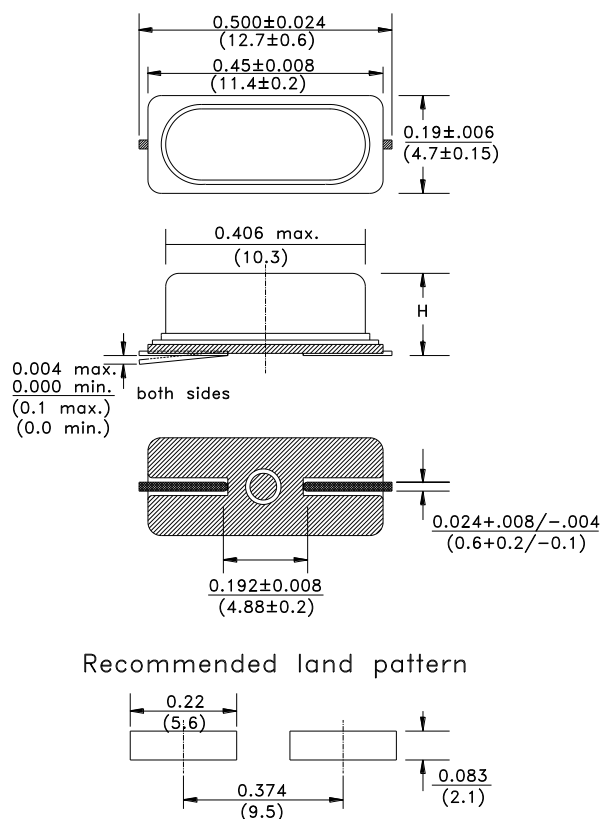
RoHS
Compliant



Reduced height
to 2.5/2.6mm

11.4 x 4.7 x 2.5/2.6mm

OUTLINE DRAWING:

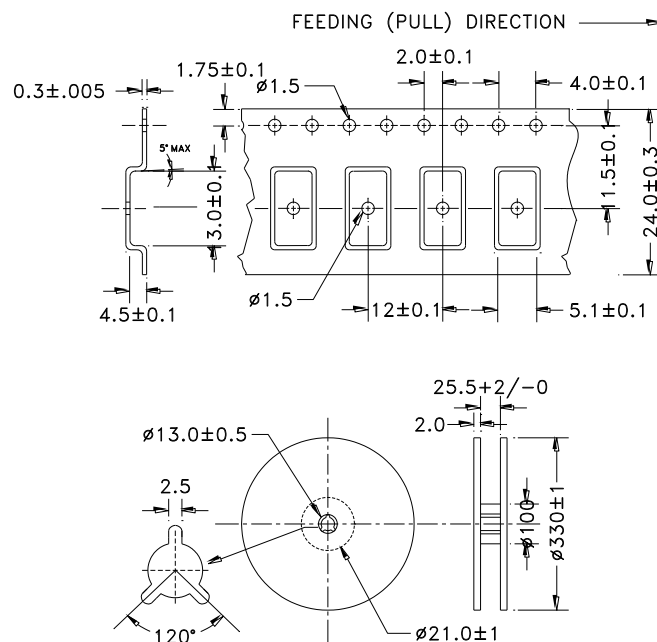


H: 2.5mm max for frequency 6MHz or higher
 2.6mm max for frequency lower than 6MHz

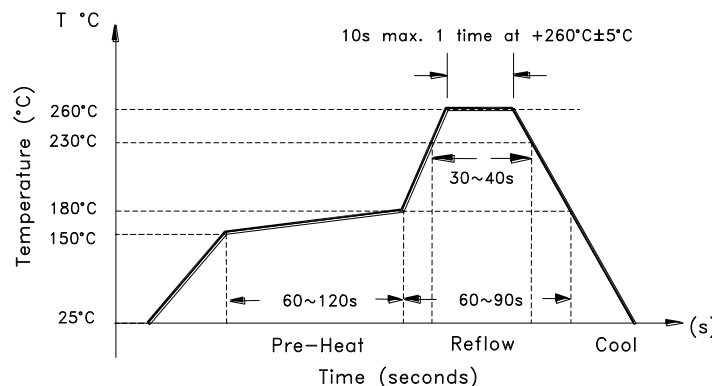
Dimensions: inches (mm)

TAPE & REEL:

T = tape and reel (1000pcs/reel)



REFLOW PROFILE:



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 9001:2008
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale

30332 Esperanza, Rancho Santa Margarita, California 92688
 tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Revised: 07.05.11