

HC/49US (AT49) MICROPROCESSOR CRYSTAL

ABL Series



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

FEATURES:

- High reliability & Low Cost
- Tight stability & extended temperature
- Proven resistance welded metal package

APPLICATIONS:

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

STANDARD SPECIFICATIONS:

| Parameters | Minimum | Typical | Maximum | Units | Notes |
|--|-------------------|---------|--------------------|-------|--|
| Frequency Range | 3.579545 | | 70 | | |
| Operation mode | 3.579545 | | 24.0 | MHz | Fundamental AT-cut (Standard) |
| | 24.01 | | 70.00 | | 3 rd OT AT-cut (Standard) |
| | 24.01 | | 50.00 | | Fundamental AT-cut or BT-cut (See options) |
| Operating Temperature | 0 | | +70 | °C | See options |
| Storage Temperature | -55 | | +125 | °C | |
| Frequency Tolerance | -50 | | +50 | ppm | See options |
| Frequency Stability over the Operating Temperature (ref. to +25°C) | -50 | | +50 | ppm | See options |
| Equivalent series resistance (R1) | See table 1 below | | | Ω | |
| Shunt capacitance (C0) | | | 7 | pF | |
| Load capacitance (CL) | | 18 | | pF | See options |
| Drive Level | | 100 | 1000 | μW | |
| Aging @ 25°C per year | | | ±5 | ppm | |
| Insulation Resistance | 500 | | | MΩ | @ 100Vdc ± 15V |
| Drive Level Dependency (DLD, Minimum 7 points tested: from 1μW to 500μW) | | | ±10 | ppm | Δfrequency (Max – Min) |
| | | | 25% of Max ESR | Ω | ΔESR (Max – Min) |
| | | | Max ESR in Table 1 | Ω | Max ESR over DLD range |

Table 1

| Frequency (MHz) | ESR(Ω) max. |
|--------------------------|-------------|
| 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 |

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



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OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ABL - MHz - - - - - -

Frequency in MHz
Please specify the frequency in xx.xxxxMHz.
e.g. 14.3181MHz

Packaging
Blank: Bulk
T: Tape & Reel
TRAY: Tray

Load Capacitance (pF)
Please specify CL (Minimum 10pF) in pF or S for series

Value Added

| | |
|-----|------------------|
| I | Insulator Tab |
| L2 | Middle 3rd lead |
| QXX | Trimmed leads |
| Q15 | for 0.15" length |

Custom ESR if other than standard
R
□: Specify a value in Ω (e.g.: R40)

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

Operating Temp.

| |
|--------------------|
| A: -10°C ~ +60°C |
| B: -20°C ~ +70°C |
| C: -30°C ~ +70°C |
| N: -30°C ~ +85°C |
| D: -40°C ~ +85°C |
| J*: -40°C ~ +105°C |
| K*: -40°C ~ +125°C |
| L*: -55°C ~ +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 |

NOTE:

* Frequency stability ±50ppm, ±100ppm, ±150ppm only. Contact ABRACON for tighter frequency stability.
** -10 to +60C only.

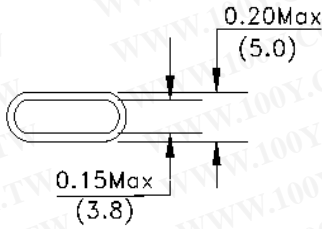
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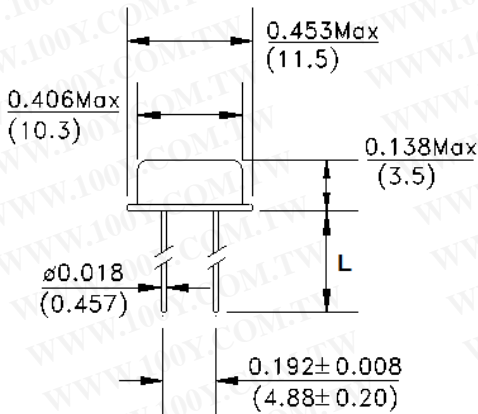
Pb RoHS/RoHS II



OUTLINE DRAWING:



| L | Packaging |
|--------------|-------------|
| 5.5mm Min | Bulk |
| 20.0 ± 0.5mm | Tape & Reel |

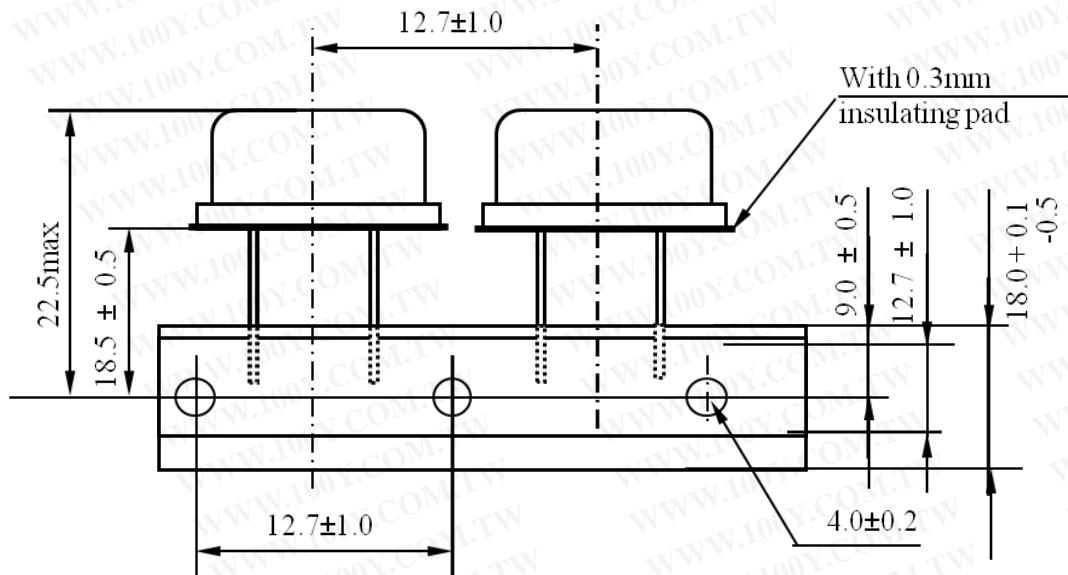


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Dimensions: inch (mm)

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
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Revised: 01.08.13