

MICROPROCESSOR CRYSTALS
AT49 (HC49 US) ULTRA LOW PROFILE
ABL, ABL2, ABL3



RoHS Directive
2002/95/EC Compliant



FEATURES:

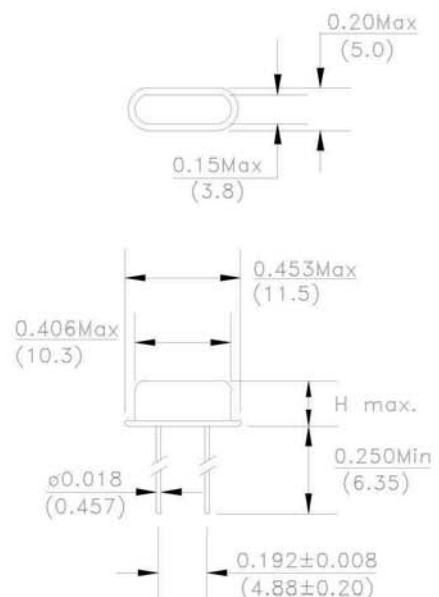
- High reliability, Low cost.
- Tight stability and extended temperature.
- Low profile.(2.0mm max. ABL3)
- Proven resistance welded metal package.

APPLICATIONS:

- Blue-tooth and wireless applications.
- Computers, Modems, Communications.
- Automotive and industrial.
- Hi-precision TCXO and clock applications.

STANDARD SPECIFICATIONS

| | |
|------------------------------------|---|
| Frequency Range | 3.579545MHz - 70.00MHz |
| Operation Mode | 3.579545MHz ≤ F ≤ 24.0MHz (Fundamental) 24.0MHz < F ≤ 50.00MHz (Fund. AT or BT) 24.0MHz < F ≤ 70MHz (Third- Overtone) |
| Operating Temperature | 0°C to + 70°C (See Options) |
| Storage Temperature | -55°C to +125°C |
| Frequency Tolerance @ 25°C | ±50ppm max. (See Options) |
| Frequency stability over temp. | ±50ppm max. (See Options)* |
| Equivalent Series Resistance (ESR) | 180 Ω max. for 3.5MHz ≤ F < 5.0MHz 120 Ω max. for 5.0MHz ≤ F < 6.0MHz 100 Ω max. for 6.0MHz ≤ F < 8.0MHz 80 Ω max. for 8.0MHz ≤ F < 9.0MHz 60 Ω max. for 9.0MHz ≤ F < 10.0MHz 50 Ω max. for 10.0MHz ≤ F < 16.0MHz 40 Ω max. for 16.0MHz ≤ F ≤ 50.0MHz |
| Fundamental | |
| Third Overtone | 100 Ω max. for 24.0MHz < F < 32.0MHz 80 Ω max. for 32.0MHz ≤ F ≤ 70.0MHz |
| Shunt Capacitance C ₀ | 7pF max. |
| Load Capacitance C _L | 18pF (See Options) |
| Drive Level | 1mW max., 100μW correlation |
| Aging @ 25°C per Year | ±5ppm max. |
| Insulation Resistance | 500MΩ min. at 100Vdc ±15V |



| Part Number | H (max.) |
|-------------|---------------|
| ABL | 0.138 (3.5) |
| ABL2 | 0.099 (2.5) |
| ABL3 | 0.079 (2.0) |

Dimensions: Inches (mm)

Environmental, and mechanical specifications, see appendix C. Group 1.
 Tape and Reel, see appendix H.(1,000pcs./reel). Reflow profile, see appendix E.
 Marking, see appendix G. Recommended handling, see appendix F.
 Application notes, see appendix A. Value added, see appendix D.

ORDERING OPTIONS

ABLX - Frequency - CL - ESR - Temperature - Tolerance - Stability - Mode - Value Added - Packaging

| | | | | | |
|-----------------------------------|--|--|--|---|---|
| Blank, 2 or 3 | RXXX (value in Ω) | -H5 for ± 5ppm** -1 for ± 10ppm -7 for ± 15ppm -2 for ± 20ppm -3 for ± 25ppm -4 for ± 30ppm | -R5 for ± 5ppm** -U for ± 10ppm -G for ± 15ppm -X for ± 20ppm -W for ± 25ppm -Y for ± 30ppm -H for ± 35ppm | -I Insulator tab -V Vinyl sleeve -L2 Middle third leads -QXX (trimmed leads) | -T for Tape and Reel -P for Foam -TY for Tray Packing |
| XX.XXXX MHz | -A for -10°C to + 60°C -B for -20°C to + 70°C -C for -30°C to + 70°C -N for -30°C to + 85°C -D for -40°C to + 85°C | | | -F for Fundamental AT> 24MHz -FB for Fundamental BT> 24MHz | ** Please call for availability |
| Load cap.in pF or S for Series | | | | * BT cut ±100ppm max. -10°C to +60°C | |

NOTE: Left blank if standard • All specifications and markings subject to change without notice

ABRACON IS
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