



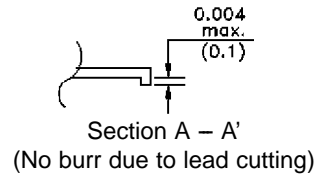
MICROPROCESSOR CRYSTALS
AT49 (HC49 US) ULTRA LOW PROFILE SURFACE MOUNT
ABLS3

FEATURES:

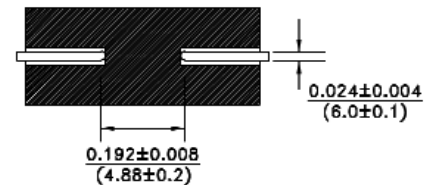
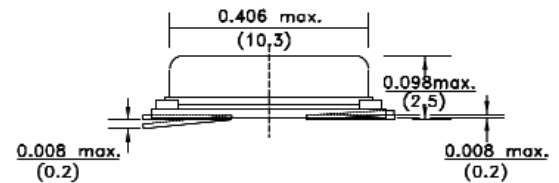
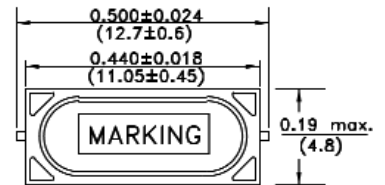
- Ultra Low Profile (2.5mm).
- Tight stability and extended temperature available.
- High reliability, Low cost SMD crystal.
- Suitable for all reflow methods.

APPLICATIONS:

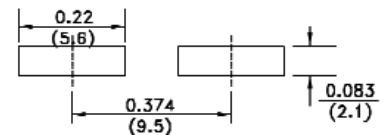
- Computers, modems, communications equipment, and networking.
- Automotive and Industrial applications.



STANDARD SPECIFICATIONS	
Frequency Range	3.57 MHz - 65 MHz
Operation Mode	3.5 MHz to ~ 24 MHz Fundamental 24.01 MHz to 50.00MHz (Fund. AT or BT) 24.01 MHz ~ 65 MHz 3rd overtone
Operating Temperature	0°C to + 70°C (See Options)
Storage Temperature	-40°C to + 125°C
Frequency Tolerance @ 25°C	± 50 ppm max. (See Options)
Frequency stability over temp.	±100 ppm max. (See Options)
Equivalent Series Resistance (ESR)	180 Ω max. for 3.5 MHz < F < 4.000 MHz 150 Ω max. for 4.0 MHz < F < 5.000 MHz 120 Ω max. for 5.0 MHz < F < 6.000 MHz 80 Ω max. for 6.0 MHz < F < 7.000 MHz 80 Ω max. for 7.0 MHz < F < 9.000 MHz 60 Ω max. for 9 MHz < F < 13.000 MHz 50 Ω max. for 13 MHz < F < 20.000 MHz 40 Ω max. for 20 MHz ≤ F ≤ 50.0MHz (F)
Fundamental	
3rd Overtone	80 Ω max. for 24.01 MHz - 70MHz
Shunt Capacitance C ₀	7 pF max.
Load Capacitance C _L	18 pF (See Options)
Drive Level	1 mW max., 100 μW correlation
Aging @ 25°C per Year	± 5 ppm max. (tighter aging available)
Insulation Resistance:	500 M Ω min. at 100 Vdc ± 15V



Recommended land pattern



Dimensions: Inches (mm)

Please see environmental, and mechanical specifications on page 68, Group 1.
 Marking, see page 76. Tape and Reel, see pages 74-75 (1,000 pcs/reel).

ORDERING OPTIONS

ABLS3 - Frequency - CL - ESR - Temperature - Tolerance - Stability - Mode - Packaging

XX.XXXX MHz	RXXX (value in Ω)	-1 for ± 10 ppm -7 for ± 15 ppm -2 for ± 20 ppm -3 for ± 25 ppm -4 for ± 30 ppm	-U for ± 10 ppm -X for ± 20 ppm -W for ± 25 ppm -Y for ± 30 ppm -H for ± 35 ppm -Z for ± 50 ppm	-T (Tape & Reel)
Load cap.in pF or -S for Series	-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 > 24 MHz) -FB (Fundamental BT > 24 MHz)

(*) BT Cut Fundamental only
 100 ppm max., -10°C. to +60°C.



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

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