

11.5 x 5.0 x 13.5 mm

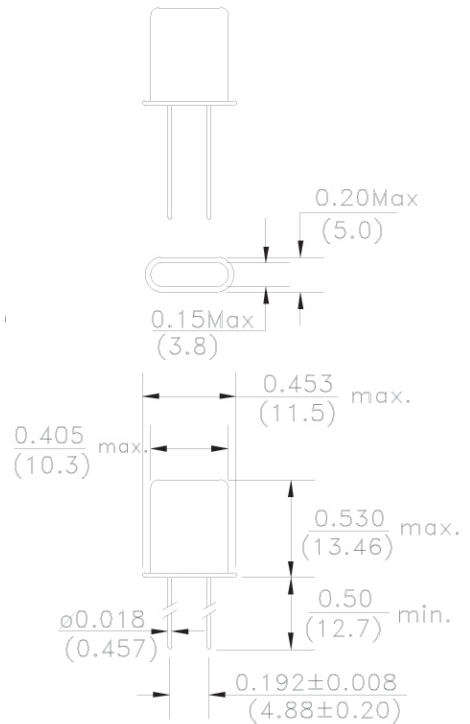
# MICROPROCESSOR CRYSTALS WIDE FREQUENCY RANGE • LOW COST • HC49/U AB

## FEATURES:

- Height 13.5 mm.
- High precision availability.
- Resistance welded.
- Good for high pullability.

## STANDARD SPECIFICATIONS

Frequency Range	<b>850kHz - 1.500MHz (HC 51/U) *</b> <b>1.0MHz &amp; 1.8432MHz - 160MHz (HC49/U)</b>
Operation Mode	850KHz ≤ F ≤ 50.0MHz (Fundamental) 24.0MHz < F ≤ 66.0MHz (3rd OT) 66.0MHz < F ≤ 122MHz (5th OT) 122.0MHz < F ≤ 160MHz (7th OT)
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.	±100ppm max. (See Options)
Equivalent Series Resistance (ESR)	2000 Ω max. for 1.0MHz ≤ F < 1.8MHz 750 Ω max. for 1.8MHz ≤ F < 2.0MHz 550 Ω max. for 2.0MHz ≤ F < 2.4MHz 350 Ω max. for 2.4MHz ≤ F < 3.0MHz 200 Ω max. for 3.0MHz ≤ F < 3.7MHz 100 Ω max. for 3.7MHz ≤ F < 4.2MHz 70 Ω max. for 4.2MHz ≤ F < 4.9MHz 50 Ω max. for 4.9MHz ≤ F < 6.0MHz 40 Ω max. for 6.0MHz ≤ F < 8.0MHz 35 Ω max. for 8.0MHz ≤ F < 10.0MHz 30 Ω max. for 10.0MHz ≤ F < 12.5MHz 25 Ω max. for 12.5MHz ≤ F < 50.00MHz
Fundamental - HC49/U	
Fundamental - HC51/U	1000 Ω max. for 850kHz ≤ F < 900kHz 800 Ω max. for 900kHz ≤ F < 1.50MHz
3rd Overtone	40 Ω max. for 24.0MHz ≤ F ≤ 66MHz
5th Overtone	80 Ω max. for 66.0MHz < F ≤ 122MHz
7th Overtone	120 Ω max. for 122.0MHz < F ≤ 160MHz
Shunt Capacitance C <sub>0</sub>	7pF max.
Load Capacitance C <sub>L</sub>	18pF (See Options)
Drive Level	1mW max, 100μW correlation
Aging @ 25°C per Year	±5ppm max. (tighter aging available)
Insulation Resistance	500M Ω min. at 100Vdc ±15V



Dimensions: Inches (mm)

Environmental, and mechanical specifications, see appendix C. Group 1.  
Marking, see appendix G. Application notes, see appendix A. \* Please, see outline dimensions of HC51/U and Value added, see appendix D.

## ORDERING OPTIONS

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

XX.XXX MHz or kHz

RXXX  
(value in Ω)

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

-1 for ± 10ppm  
-7 for ± 15ppm  
-2 for ± 20ppm  
-3 for ± 25ppm  
-4 for ± 30ppm

-U for ± 10ppm  
-G for ± 15ppm  
-X for ± 20ppm  
-W for ± 25ppm  
-Y for ± 30ppm  
-H for ± 35ppm  
-Z for ± 50ppm

-F (Fundamental AT > 24MHz)  
-FB (Fundamental BT > 24MHz)\*\*  
-0 (3rd OT > 66MHz)

\*\* ±100ppm max. stability from -10°C. to 60°C only.

-I (Insulator Tab)  
-L (3rd Lead welded)  
-V (Vinyl Sleeve)  
-L1 (3rd Lead Soldered)  
-L2 (Middle 3rd Lead)  
-L3 (Side Welded 3rd Lead)  
-M (SMT Formed Leads)  
-MJ (Metal Jacket)  
-QXX (Trimmed Leads)

-T (Tape & Reel)  
-P (Foam)  
-TY (Tray Packing)



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

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