

HC-49US Thru Hole Crystal

Type: 92, 93, 9S, 94, 95



■ Features

- High Reliability, Low Cost Crystal
- Tight Stability & Extended Temperature Available
- Lead-free Type
- Taping, Gull Wing, and other options available, please refer to our Value Added Option pages
- Automotive Applications, please contact our sales representative

■ Standard Specification

Frequency Range	3.01MHz ~ 100.00MHz(Specific Available Frequencies)
Oscillation Mode	AT Cut Fundamental, BT Cut Fundamental, AT Cut 3 rd Overtone
Frequency Tolerance at 25 °C	± 30PPM is standard, but tight tolerances also available
Frequency Stability Over Operating Temperature Range (refer to 25 °C)	± 50PPM is standard, but tight tolerances also available
Operating Temperature Range	-10 °C ~ +60 °C (standard), or specify
Operable Temperature Range	-40 °C ~ +125 °C
Equivalent Series Resistance ESR/Rs (Measured at Series Resonance)	Refers to ESR Table
Drive Level	50μW is standard, 0.001μW to 1000μW also available
Load Capacitance	12pF, 16pF, 20pF, 22pF, Series, or specify
Aging	±5ppm/Year

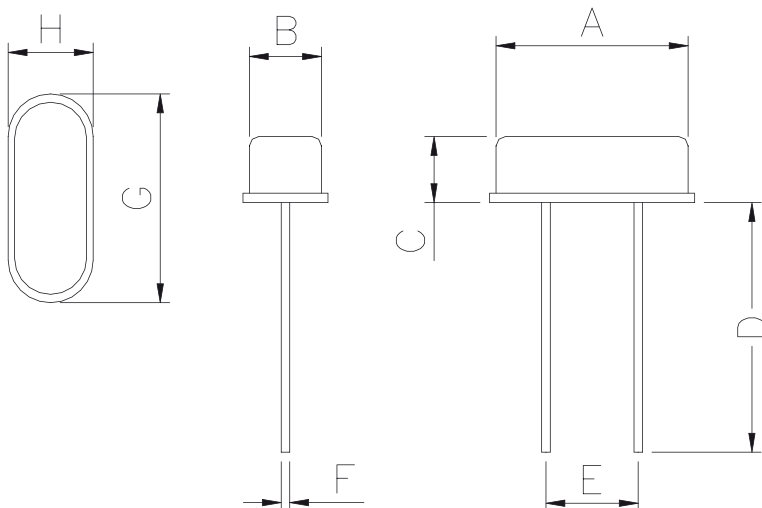
※ Specification subject to change without prior notice.

※ For any requirements other than the above table, please contact our sales.

ESR Table

Oscillation Mode	Frequency Range (MHz)	Max. ESR (Ω)
AT Cut Fundamental	3.01 ~ 4.00MHz	300 ~ 150Ohm
	4.01 ~ 5.50MHz	130 ~ 80Ohm
	5.51 ~ 8.00MHz	80 ~ 50Ohm
	8.01 ~ 40.00MHz	50 ~ 30Ohm
AT Cut 3 rd Overtone	27 ~ 50MHz	400hm
BT Cut Fundamental	26MHz ~ 100MHz	100Ohm

■ Dimensions (mm)



ITEM	DIMENSION	
A	10.16 max.	
B	3.81 max.	
C	92	2.15 MAX
	93	2.50 MAX
	9S	3.50 MAX
	94	4.00 MAX
	95	5.00 MAX
D	13.2±0.5	
E	4.88±0.2	
F	0.45±0.2	
G	11.05 MAX	
H	4.70±0.2	