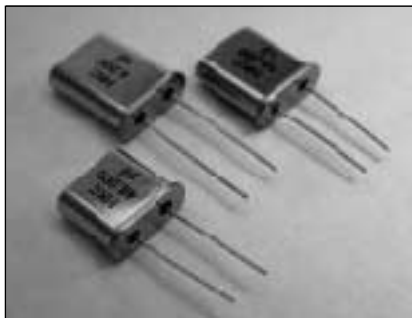


HC-49U/49T THRU HOLE

Type: 9U, 9T, 9D, 6A, 6B



APPLICATION:

- . Computers, Modems, and Networking
- . Telecommunication
- . Industrial
- . Consumer Electronics

FEATURES:

- . High Reliability, Low Cost Crystal
- . Tight Stability & Extended Temperature Available

OPTIONS:

- . Height of Lead Type: 13.21mm, 11.2mm, 9.5mm, 7.9mm, 6.5mm
- . Paper Tape & Reel Packing/ Ammo Packing
- . Blister Tape & Reel Packing for Gull Wing Packing
- . Bent Lead and Formed Lead
- . Laser Marking or Ink Marking
- . Tailor Made Spec. or Designer Spec Welcome
- . Center Third Lead On Top
- . Insulator For Both 2 Leads and 3 Leads
- . Vinyl Sleeve on HC-49U & HC-49UT Cover

STANDARD SPECIFICATION

Frequency Range	1.8432 MHz~200.00MHz (Consult Factory For Specific Available Frequencies)				
Oscillation Modes	AT Cut Fundamental 1.8432 MHz ~ 45MHz	BT Cut Fundamental 24MHz~45MHz	AT Cut 3 rd Overtone 20MHz~100MHz	AT Cut 5 th Overtone 60MHz ~120MHz	At Cut 7 th Overtone 120MHz~200MHz
Equivalent Series Resistance ESR/Rs (Measured at Series Resonance)	1.8432~3.000MHz: 550~300Ohm 3.01~4.000MHz: 150~100 Ohm 4.01~6.000MHz: 80~60 Ohm 6.01~11.000MHz: 50~40 Ohm 11.01~50.000MHz: 35~25 Ohm	30 Ohm	40 Ohm	100 Ohm	150 Ohm
Frequency Tolerance at 25°C	±30PPM is standard, but tight tolerances also available for certain frequencies				
Frequency Stability Over Operating Temperature Range	±50PPM is standard, but tight tolerances also available for certain operating temperature range.				
Operating Temperature Range	-10 ~+60°C is standard, but can be extended to -55 ~+125°C				
Load Capacitance	8pF ~ ∞ pF (∞ pF mean series Resonance). To be specified by customer				
Drive Level	50 μW is standard, 0.001 μW to 1000 μW also available				
Ageing	±5PPM per year is standard, but ±1 PPM also available				
Shunt Capacitance	7pF Maximum				
Pullability	May be specified by customer in terms of frequency shift required over a certain range of load capacitance, (e.g. +100PPM from CL=12pF to CL=18pF)				

* Specification subject to change without prior notice.

* Packing information refer to page 40
* Marking Information refer to page 38
* Additional option refer to page 36-37

ORDERING INFORMATION

Type	Frequency	Tolerance at 25°C	Load Capacitance	Mode	T.C. Range	T.C. Tolerance																																														
9U~13.21mm 9T~11.20mm 9D~9.50mm 6A~6.50mm 6B~7.90mm	A=± 5 L=± 70 B=± 10 M=± 2.5 C=± 15 N=± 150 D=± 20 P=± 35 E=± 30 Q=± 60 F=± 50 R=± 80 G=± 100 S= see serial H=± 25 I=± 200 1=± 1 ppm J=± 45 2=± 2 ppm K=± 40 3=± 3 ppm 4=± 4 ppm	Load Capacitance 32= 32pF 10=10pF 08=8pF CS=Series	F=Fund B=BT Cut 3=3 rd Overtone 5=5 th Overtone 7=7 th Overtone	Please Refer to tolerance at 25°C table																																																
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Item	Dimension
A	10.16 MAX
B	3.81 MAX
C	X'tals Type
	9U 13.21mm MAX
	9T 11.50mm MAX
	9D 9.50mm MAX
	6A 6.50mm MAX
	6B 7.90mm MAX
D	13.2 ± 0.5
E	4.88 ± 0.2
F	0.45 ± 0.05
G	11.05 MAX
H	4.70 MAX

