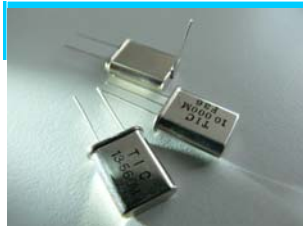
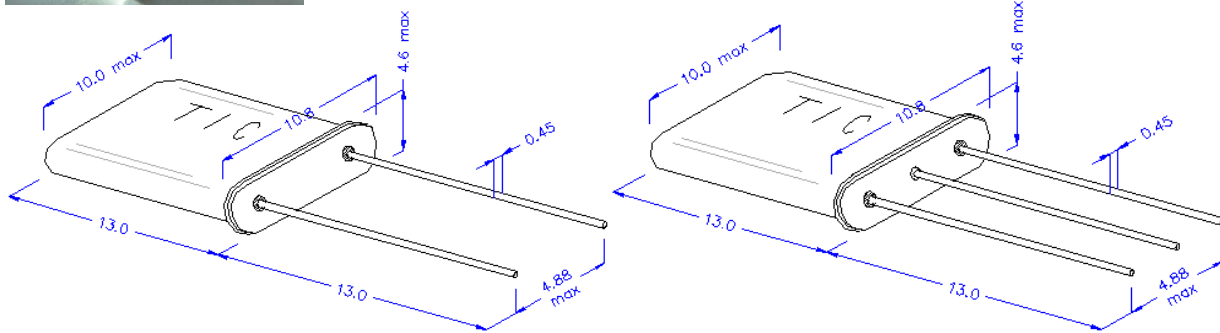


# Crystal Unit



HC-49U



## Standard Parameter

Frequency Range	1.800 MHz ~ 160.000 MHz
Frequency Tolerance (at 25 °C)	±10ppm / ±20ppm / ±30ppm
Load Capacitance	20pF / upon request
Frequency Stability	±10ppm / ±30ppm / ±50ppm
Operating Temperature Range	-20 °C ~ +70 °C
Storage Temperature Range	-40 °C ~ +85 °C
Equivalent Resistance	Refer to the following table
Shunt Capacitance	7 pF max
Drive Level	100 μW max
Insulation Resistance	500MΩ min at DC100V ±15V
Aging (at 25 °C per year)	±5ppm

## Equivalent Series Resistance

Frequency Range	Mode of Oscillation	Series Resistance
1.800 MHz ~ 1.999 MHz	Fundamental	600 Ω
2.000 MHz ~ 2.999 MHz		500 Ω
3.000 MHz ~ 3.499 MHz		150 Ω
3.500 MHz ~ 3.999 MHz		100 Ω
4.000 MHz ~ 4.999 MHz		80 Ω
5.000 MHz ~ 7.999 MHz		60 Ω
8.000 MHz ~ 9.999 MHz		40 Ω
10.000 MHz ~ 15.999 MHz		35 Ω
16.000 MHz ~ 24.999 MHz		30 Ω
25.000 MHz ~ 35.999 MHz		40 Ω
24.000 MHz ~ 24.576 MHz	3 <sup>rd</sup> Overtone	50 Ω
25.000 MHz ~ 89.999 MHz		40 Ω
75.000 MHz ~ 160.000 MHz	5 <sup>th</sup> Overtone	80 Ω