

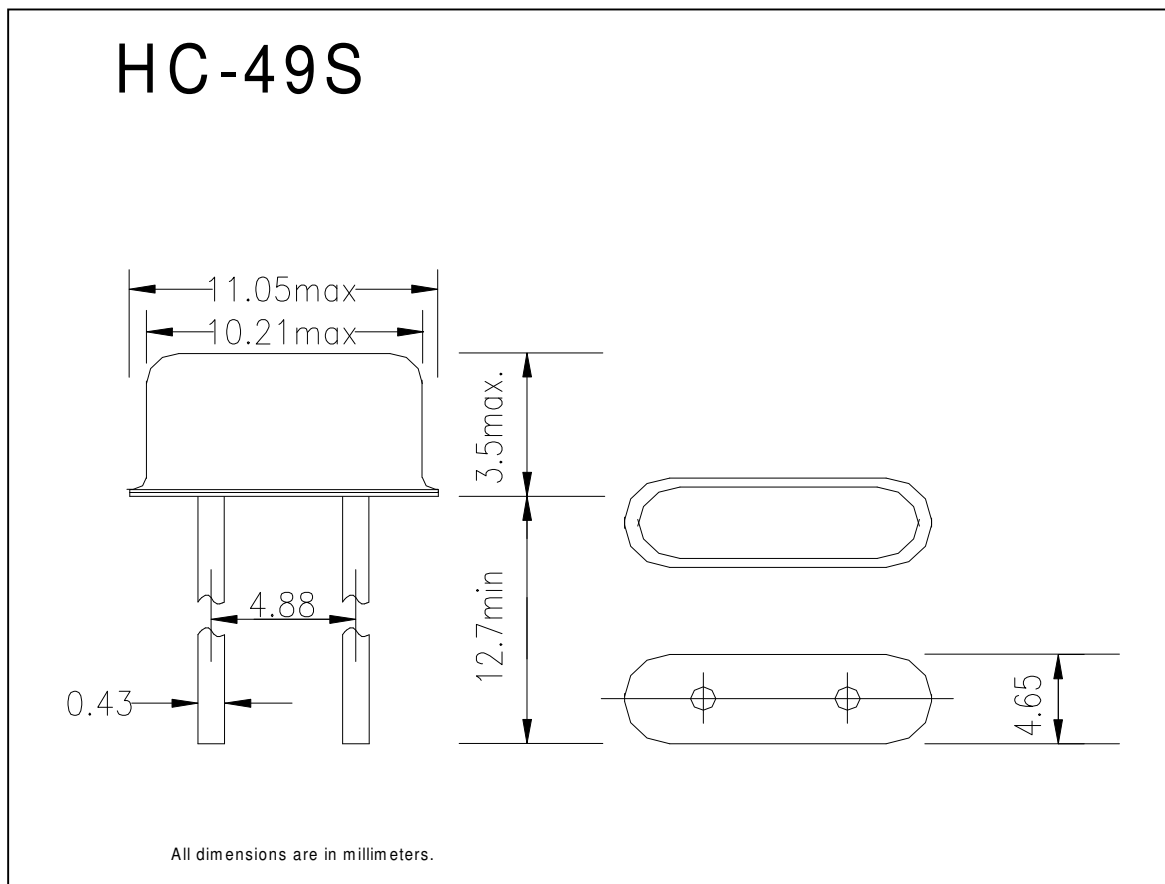
# HC-49S

## Features

- miniature size
- low cost
- through-hole
- high stability
- tight-tolerance
- superb aging characteristic
- excellent anti-shock holder

## Applications

- Cordless Phones
- Wireless Equipment
- Datacom Hubs / Switches / Routers
- ADSL Modems
- RF transmitters / receivers
- A/V applications



**Specifications**

Vibration Mode:	fundamental / third overtone / fifth overtone
Frequency Tolerance at 25°C:	±10ppm ~ ±50ppm
Loading Capacitance:	10pF ~ 32pF or series
Shunt Capacitance:	7.0pF max.
Equivalent Series Resistance:	see Resistance Table
Frequency vs. Operating Temp:	see Frequency vs Operating Temp Table
Drive Level:	10 μ W ~ 1000 μ W
Insulation Resistance:	500MΩmin / DC 100V
Storage Temperature Range:	-40°C ~ +85°C

**Resistance Table (ESR)**

Frequency Range(MHz):	HC-49U	HC-49T	HC-49S	HC-49SMD	Vibration mode
1.800+ ~ 2.000	700	800	1200	1200	fundamental
2.000+ ~ 3.000	500	600	1000	1000	fundamental
3.000+ ~ 3.200	300	400	600	600	fundamental
3.200+ ~ 4.000	150	200	180	180	fundamental
4.000+ ~ 4.500	90	150	150	150	fundamental
4.500+ ~ 5.000	70	80	120	120	fundamental
5.000+ ~ 7.000	50	60	100	100	fundamental
7.000+ ~ 10.000	35	40	90	90	fundamental
10.000+ ~ 20.000	25	25	70	70	fundamental
20.000+ ~ 25.000	45	50	120	120	third overtone
25.000+ ~ 70.000	40	40	100	100	third overtone
70.000+ ~ 160.000	70	70	-	-	fifth overtone

**Frequency vs Operating Temp Table**

Temp(°C)	PPM	PPM						
		±2.5	±5	±10	±15	±20	±30	±50
0 ~ +50		*	*	*	*	*	*	*
-10 ~ +60			*	*	*	*	*	*
-20 ~ +70				*	*	*	*	*
-30 ~ +80					*	*	*	*
-40 ~ +85						*	*	*

**Other Options**

- third lead
- insulation tag
- tray pack or tape pack
- ultra low profile 2.5mm height