MOBICON
Electronic Components

MEC

QUARTZ CRYSTAL UNIT

Product Brief Introduction

SERIES: HC49U

Application:

Radio communication, Audio-visual equipment, Office automation equipment, Consumer product

Specification

Frequency range	See table 1
Vibration mode	AT cut: fundamental. Third
Frequency tolerance at 25 ℃	±10, ±15, ±20, ±30, ±50 ppm
Operating temperature range and frequency stability	See Table 2
Equivalent series resistance	See Table 1
Shunt capacitance	7.0pF max or special
Measure instrument	S&A 250B PI system
Load capacitance	Series, 16, 20, 30pF or special
Drive level	10,100, 300, 500uW or special
Insulation resistance	500 M Ω min/DC 100V
Aging	±1, 3, 5ppm/ year
Storage temperature range	-40 ~ +85℃

Table 1/ Frequency range & Equivalent Series resistance

Frequency (MHz)	Vibration mode	HC-49U(Ω)	HC-49T(Ω)	HC-50U(Ω)	HC-50T(Ω)
1.8~1.99	Fundamental /F	700		700	
2.0~2.99	Fundamental /F	500	600	500	600
3.0~3.19	Fundamental /F	300	400	300	400
3.2~3.99	Fundamental /F	150	200	150	200
4.0~4.49	Fundamental /F	90	150	90	150
4.5~4.99	Fundamental /F	70	80	70	80
5.0~6.99	Fundamental /F	50	60	50	60
7.0~9.99	Fundamental /F	35	40	35	40
10.0~30.0	Fundamental /F	25	25	25	25
20.0~24.99	Third/ O3	45	50	45	50
25.0~90.0	Third/ O3	40	40	40	40
90.1~160.0	Third/ O3	70	70	70	70

Table 2/Operating temperature range and frequency stability

TEMP \ PPM	±3	±5	±7.5	±10	±15	±20	±30	±50
0~+50℃	☆	☆	☆	☆	☆	☆	☆	☆
-10~+60℃	☆	☆	☆	☆	☆	☆	☆	☆
-20~+70℃		☆	☆	☆	☆	☆	☆	☆
-30~+80℃				☆	☆	☆	☆	☆
-40~+90℃					☆	☆	☆	☆

The mark " ☆ " denotes our achieved level

DIMENSIONs (mm)