

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 °C | ±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°C |

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°C | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| -10~+60°C | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| -20~+70°C | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| -30~+80°C | | | | ☆ | ☆ | ☆ | ☆ | ☆ |
| -40~+90°C | | | | | ☆ | ☆ | ☆ | ☆ |

The mark " ☆ " denotes our achieved level

DIMENSIONS (mm)

