

HC49/4H CRYSTALS

DESCRIPTION

HC49/4H crystals share the same base dimensions as the industrystandard HC49 crystal but with a low profile can. The crystal utilizes an AT-cut strip crystal with a hermetically sealed metal can. HC49/4H crystals provide a low-cost solution for many applications, particularly where PCB height is restricted.

FEATURES

- Very low cost crystal
- Available with 3.5mm (standard) or 2.5mm height
- · AT-cut strip crystal with hermetically sealed metal can
- Comprehensive Euroquartz stockholding
- Ideal crystal for height-limited PCBs

GENERAL SPECIFICATION

| Frequency Range: | 3.2MHz to 70MHz | |
|--------------------------------------|---------------------------------------|--|
| Oscillation Mode | | |
| AT-cut Fundamental: | 3.2MHz to 30.0MHz | |
| BT-cut Fundamental: | 24.0MHz to 48.0MHz | |
| AT-cut Third Overtone: | 27.0MHz to 70.0MHz | |
| Calibration Tolerance at 25°C | | |
| AT-cut: | \pm 30ppm (Tolerance to \pm 10ppm | |
| | is also available) | |
| BT-cut: | ±30ppm | |
| Frequency stability over temperature | | |
| AT-cut: | ±30ppm over -10° to +60°C | |
| | (Tolerance ±10ppm over -10° to | |
| | +60°C is also available) | |
| BT-cut: | ±100ppm over-10° to +60°C | |
| Load Capacitance: | 8pF to 32pF or Series (Specify) | |
| Ageing: | ±3ppm max 1st year, | |
| | ±1ppm max per year after | |
| Drive level: | 500mW max | |
| Static capacitance (CO): | 7pF maximum | |

OSCILLATION MODE & ESR

| Frequency (MHz) | Crystal Cut/ Oscillation Mode | ESR (max) (Ohms) |
|--------------------|----------------------------------|---------------------|
| 3.2 ~ 3.4 | AT Fund. | 300 |
| 3.5 ~ 4.0 | AT Fund. | 150 |
| 4.1 ~ 4.9 | AT Fund. | 120 |
| 5.0 ~ 5.9 | AT Fund. | 100 |
| 6.0 ~ 8.9 | AT Fund. | 80 |
| 9.0 ~ 9.9 | AT Fund. | 60 |
| 10.0 ~ 12.9 | AT Fund. | 50 |
| 13.0 ~ 30.0 | AT Fund. | 40 |
| 24.0 ~ 40.0 | BT Fund. | 40 |
| 40.1 ~ 48.0 | BT Fund. | 30 |
| 30.1 ~ 50.0 | AT 3rd. | 100 |
| 50.1 ~ 70.0 | AT 3rd. | 80 |

PART NUMBER GENERATION

HC49/4H crystal part numbers are derived as follows:

Example: 24.000MHz HC49/4H/30/50/10/30pF/ATF

Frequency Holder/Calibration/Temp. Stability/ Temp. Range/Circuit

OUTLINES & DIMENSIONS



HC49/4HL 10.26



Glass insulator

TEMPERATURE STABILITY

Sample curves for AT-cut and BT-cut strip crystals



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