

- Low-cost, industry-standard crystal unit
- Available to close tolerances
- Frequency range 1.0MHz to 250MHz
- Package options



### DESCRIPTION

HC49 crystals are long-established, industry-standard crystals. Standard HC49 crystals provide a very low cost source of system clock frequency and they are also able to be produced to very close tolerances where required. Several holder variants are possible.

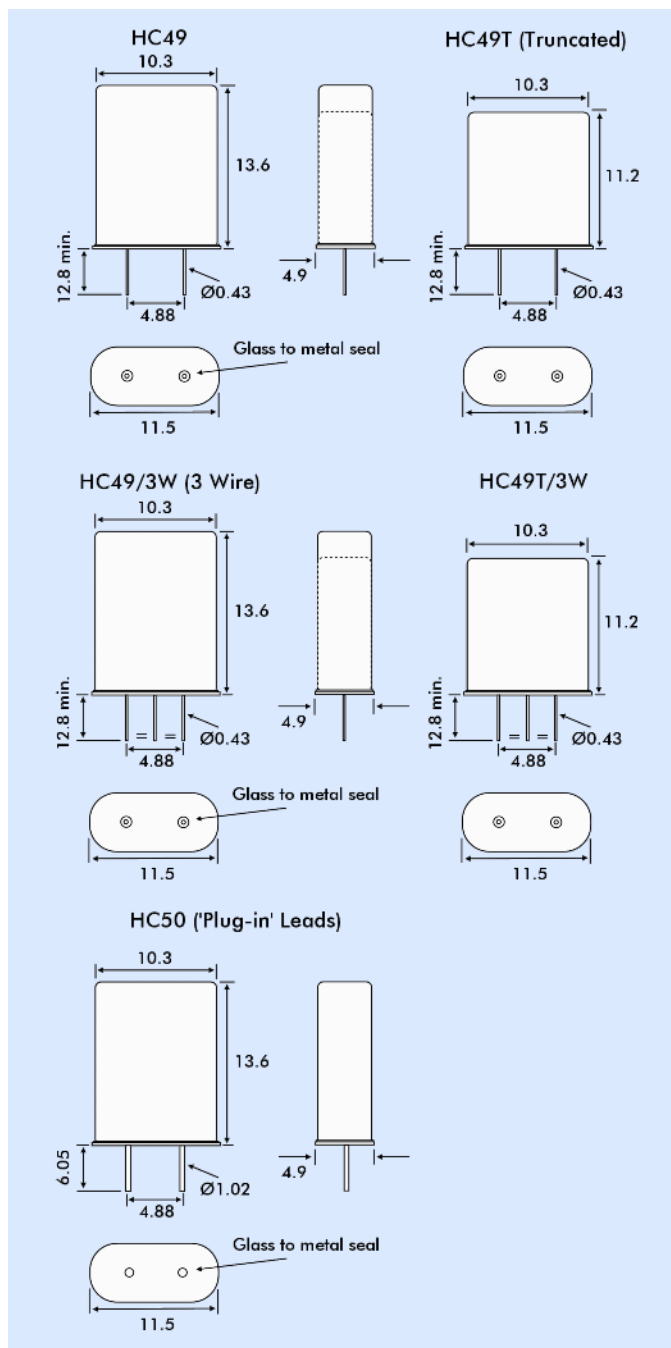
### SPECIFICATION

Frequency Range:	1.0MHz to 250MHz
Oscillation Mode:	See table
Calibration Tolerance at 25°C:	from ±3ppm to ±50ppm
Frequency Stability:	from ±3ppm to ±50ppm
Shunt Capacitance (C0):	7pF maximum
Load Capacitance (CL):	Series or from 8pF to 32pF (Customer specified CL)
Ageing:	±3ppm maximum, 1st year, ±1ppm per year thereafter.
Drive Level:	100µW typical., 500µW max.
Crystal Holder:	Resistance-weld hermetic seal
Supply format:	Bulk pack

### ESR and OSCILLATION MODE

Frequency Range MHz	Crystal Cut Osc. Mode	ESR Ω Max.
1.0 ~ 1.3	SL Fund.	5000
2.01 ~ 3.0	AT Fund.	400
3.01 ~ 3.2	AT Fund.	200
3.21 ~ 3.5	AT Fund.	150
3.51 ~ 3.9	AT Fund.	120
3.91 ~ 5.0	AT Fund.	100
5.01 ~ 7.0	AT Fund.	50
7.01 ~ 10.0	AT Fund.	35
10.0 ~ 30.0	AT Fund.	25
30.1 ~ 45.0	AT Fund.	20
24.0 ~ 100	AT 3rd OT	40
80.0 ~ 160	At 5th OT	70
110 ~ 250	AT 7th OT	120

### OUTLINES & DIMENSIONS



### PART NUMBER GENERATION

Part numbers for HC49 crystals are generated as follows:

Example: 16.00MHz HC49/20/30/-10+60/30pF/30R

Frequency / holder / calibration tolerance / stability / temp. range / circuit condition / ESR