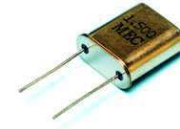


- Low frequencies with minimal ESR
- Closest tolerances available
- Customizable specification
- Industry-standard package



### DESCRIPTION

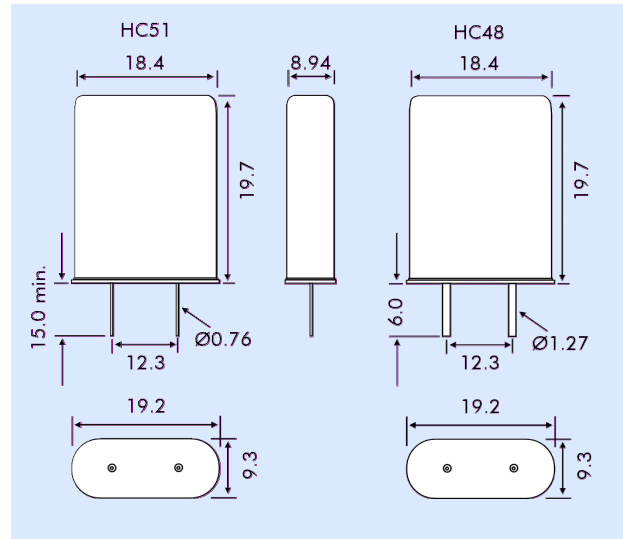
HC51 crystals are long-established standard crystals in the industry. Basic HC51 crystals supply low frequencies with low ESR at low cost. HC48 crystals are a package variant with larger diameter leads for socket mounting.

### SPECIFICATION

Frequency Range:	100.0kHz to 70.0MHz (See table for crystal cut and ESR)
Calibration Tolerance:	From $\pm 10$ ppm to $\pm 100$ ppm
Frequency Stability over Temp:	From $\pm 10$ ppm to $\pm 100$ ppm (See table)
Load Capacitance:	From 8pF to 50pF or Series
Drive Level:	1mW maximum
Static Capacitance (C0):	9pF maximum
Ageing:	$\pm 3$ ppm maximum in first year $\pm 1$ ppm thereafter
RoHS Status:	RoHS Compliant*
Holder Types	HC51: Two lead standard HC48: 1.27mm leads for socket use

\* If required, non-RoHS Compliant parts may be specified. Check with Euroquartz technical sales.

### OUTLINE & DIMENSIONS



### ESR & OSCILLATION MODE

Frequency Range	Crystal Cut Oscillation Mode	ESR $\Omega$ Max.
100.0kHz ~ 890kHz	SL-Fundamental	3000
890kHz ~ 1.8432MHz	AT-Fundamental	800
1.8432 ~ 2.5MHz	AT-Fundamental	350
2.5 ~ 3.5MHz	AT-Fundamental	200
3.5 ~ 7.0MHz	AT-Fundamental	100
7.0 ~ 12.0MHz	AT-Fundamental	40
12.0 ~ 24.0MHz	AT-Fundamental	20
9.0 ~ 30.0MHz	AT-3rd Overtone	20
15.0 ~ 70.0MHz	AT-5th Overtone	20

### PART NUMBER FORMAT

Example: 1.8432MHz HC51/50/50/-10+60/30pF

Nominal Frequency  
 Package HC51 or HC48  
 Calibration tolerance at 25°C ( $\pm$ ppm)  
 Temp. stability over temp. range ( $\pm$ ppm)  
 Operating Temp. Range (- and +°C)  
 Load Capacitance (CL) in pF or SR = Series

### STABILITY OVER TEMPERATURE RANGE (AT-CUT CRYSTALS)

Temp. Range °C	Stability ppm						
	$\pm 7.5$	$\pm 10$	$\pm 15$	$\pm 20$	$\pm 30$	$\pm 50$	$\pm 100$
0~+50	✓	✓	✓	✓	✓	✓	✓
-10~+60	✓	✓	✓	✓	✓	✓	✓
-20~+70	X	✓	✓	✓	✓	✓	✓
-30~+80	X	X	X	✓	✓	✓	✓
-40~+85	X	X	X	X	✓	✓	✓
-55~+125	X	X	X	X	X	✓	✓

(✓ = Available, X = Not available)