HC51 SERIES CRYSTALS

DESCRIPTION

HC51 crystals are long-established standard crystals in the industry. Basic specification HC51 crystals provide low frequencies at relatively low cost and have the advantage of low ESR values. A holder variant is the HC48 which has larger diameter leads specifically for socket mounting.

FEATURES

- **Low frequencies with low ESR values.**
- **Available with close tolerances**
- **Fully customisable specification**
- **Industry-standard package with options**
- **Wide frequency range**

GENERAL SPECIFICATION

Frequency Range:	100kHz to 70MHz
Calibration Tolerance at 25°C:	from ±10ppm to ±100ppm
Frequency stability over temp:	from ±10ppm to ±100ppm
Load Capacitance:	8pF to 50pF, or Series
Ageing:	±3ppm max 1st year, ±1ppm max per year after
Drive level:	1mW max
Static capacitance (C0):	9pF max
Holder:	Resistance-weld, hermetic seal

Part Numbers for Holder Variants *

Holder Type	**Holder Designation**
Standard 2 lead:	HC51
'Plug-in' for use in socket:	HC48

OSCILLATION MODE & ESR

Frequency (MHz)	Crystal Cut/ Oscillation Mode	ESR (max) (Ohms)
100kHz~890kHz	SL Fund.	3000
890kHz~1.8432	AT Fund.	800
1.8432~2.5	AT Fund.	350
2.5~3.5	AT Fund.	200
3.5~7.0	AT Fund	100
7.0~12.0	AT Fund.	40
12.0~24.0	AT Fund.	20
9.0~ 30.0	AT 3rd OT	20
15.0~70.0	AT 5th OT	20

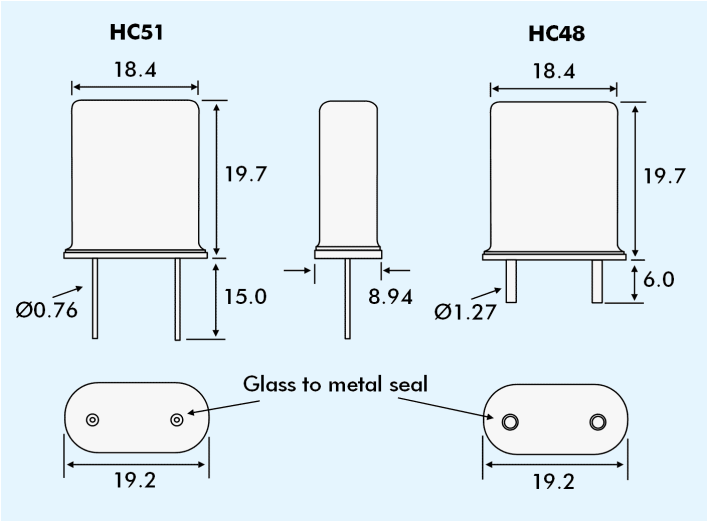
PART NUMBER GENERATION

HC51 crystal part numbers are derived as follows:

Example: **1.000MHz HC51/50/100/10/30pF/ATF**

Frequency
Holder (HC51 or HC48)
Calibration Tolerance (±ppm)
Temperature Stability (±ppm)
Temperature Range (±ppm)
Circuit Condition
Crystal Cut and Mode

OUTLINES & DIMENSIONS



FREQUENCY STABILITY OVER TEMPERATURE

Operating Temp. °C	Temperature Stability (ppm)						
	±3	±5	±7.5	±10	±15	±20	±30
0° to +50°	X	X	ü	ü	ü	ü	ü
-10° to +60°	X	X	X	X	ü	ü	ü
-20° to +70°	X	X	X	X	X	ü	ü
-30° to +80°	X	X	X	X	X	ü	ü
-40° to +90°	X	X	X	X	X	X	ü
-55° to +105°	X	X	X	X	X	X	ü

ü Indicates this stability is available over the stated operating temp. range

CUSTOM PRODUCTION

Euroquartz maintain stocks of certain frequency and specificationHC51 and HC48 crystals. Custom parts are manufactured to order on short lead times. Contact Euroquartz technical sales with your requirement.

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