GENERAL PRODUCT SPECIFICATION

EUROQUARTZ

Telephone: +44 (0)1460 230000
Fax: +44 (0)1460 230001
Email: sales@euroquartz.co.uk
Web: www.euroquartz.co.uk

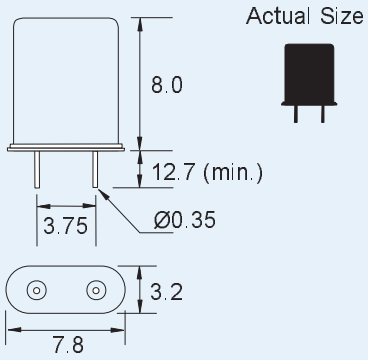
QUARTZ CRYSTALS

HFF CRYSTALS
HIGH-FREQUENCY
FUNDAMENTAL
QUARTZ CRYSTALS

- Fundamental Frequency 35MHz to 160MHz
- Low ESR from 15Ω
- Ideal for low-noise oscillators

General Specification

Frequency range:	35.0MHz to 160MHz .
Mode:	AT-Cut Fundamental
Holder:	UM-1
Sealing Method:	Resistance weld.
Frequency adjustment at 25°C:	±20ppm (Standard) ±10, ±30, ±50ppm (Option)
Frequency stability over temp.:	From ±20ppm over -20° to +70°C
Operating Temperature Range:	0° ~ +70248 (Standard) -20° to +70°, -40° to +85°C (Option)
Storage Temperature Range:	-55° to +125°C
Shunt Capacitance:	5pF maximum
Insulation Resistance:	500MΩ min. at 100VDC
Drive Level:	100µW maximum
Motional Capacitance (C1):	2fF to 15fF
Load Capacitance (CL):	18pF (Standard) Series Resonant or >10pF
C0/C1 Ratio:	Customer specified
Ageing:	±3ppm/year



Outline and Dimensions

Frequency v. ESR v. Operating Mode

Frequency Range	ESR Ω	Mode/Cut
35.0MHz to 50.0MHz	15 max.	Fundamental AT
50.0MHz to 100.0MHz	20 max.	Fundamental AT
100.0MHz to 160.0MHz	25 max.	Fundamental AT

To order

Specify frequency, Style (HFF), stability and operating temperature range code (table below), circuit condition.
To assist ordering and reordering a unique part number can be allocated for customer designs.

Frequency v. ESR v. Operating Mode

Code	Tolerance @ 25°C	Temperature Stability	Operating Temp. Range
Blank	±50ppm	±100ppm	0° to +70°C
A	±50ppm	±100ppm	-20° to +70°C
B	±50ppm	±100ppm	-40° to +85°C
C	±30ppm	±50ppm	0° to +70°C
D	±30ppm	±50ppm	-20° to +70°C
E	±20ppm	±30ppm	0° to +85°C
F	±20ppm	±30ppm	-20° to +70°C
G	±10ppm	±20ppm	-20° to +70°C

Order Code Example:
72.0MHz HFF A 18pF

Describes: Frequency 72.0MHz,±50ppm @25°C, ±100ppm over 0° to +70°C, CL = 18pF

Custom crystal service

Due to the custom-designed nature of High Frequency Fundamental (HFF) crystals, Euroquartz produce HFF crystals to customer's specifications. There is a short lead time from design to production for these parts. Contact Euroquartz application engineers to discuss your requirements.