

Crystal Specification

Model: HC49/4H

ISSUE 15; September 2012 - RoHS 2011/65/EU

Description

■ Industry standard leaded package

Resistance welded, hermetically sealed in an inert atmosphere, glass to metal seals on leads

Variants available include but are not limited to -

3L = a centre mounted third leg grounds the can

Low profile versions available please contact our sales offices for

Please see our HC49/4HSMX for a SMD alternative

Frequency Range

■ Frequency■ Frequency Stability±15.00ppm

■ Frequency Tolerance ±10ppm to ±100ppm

General Specification

■ Load Capacitance (CL) 10.0pF to 75.0pF or Series

■ Drive Level 500µW max

■ Ageing ±5ppm typical per year at 25°C

■ Shunt Capacitance (C0) 7pF max

Operating Temperature Ranges

■ 0 to 50°C

-10 to 60°C

■ -20 to 70°C

-30 to 80°C

■ -40 to 85°C

■ -55 to 105°C

Frequency Parameters

Ageing: ±1ppm available on request

Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: 981m/s², 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-500Hz, 98.1m/s², 30mins in 3 mutually perpendicular planes

Ordering Information

■ Frequency*

Model*

Frequency Tolerance (@ 25°C)*

Frequency Stability (over operating temperature range)*

Operating Temperature Range*

Load Capacitance*

Overtone*

(*minimum required)

Example

10.0MHz HC49/4H

50/50/-40 to 85C/10 FUND

Packing Details

■ Pack Style: **Bulk** Loose in Bulk pack

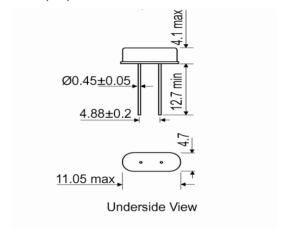
Pack Size 100

■ Pack Style: Reel Tape and reel in accordance with EIA-468-C

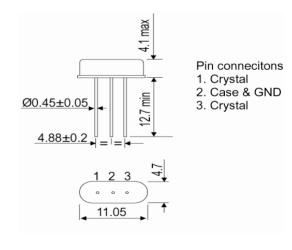
Pack Size 1,000

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Outline (mm)



-3L = 3 Lead



Sales Office Contact Details:

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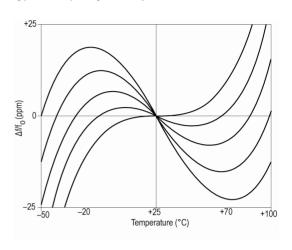
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■ Alternative packing options available

Typical Frequency vs Temperature Curves



Electrical Specification - maximum limiting values

Frequency Range	Frequency Tolerance	Stability		Temperature Range	ESR Max	Vibration Mode
		Min	Max			
3.2 to <4.0MHz	±10ppm to ±100ppm	±15ppm	±500ppm	0 to 50°C	300Ω	Fundamental
		±20ppm		-10 to 60°C		
		±20ppm		-20 to 70°C		
		±25ppm		-30 to 80°C		
		±30ppm		-40 to 85°C		
		±100ppm		-55 to 105°C		
4.0 to <5.5MHz	±10ppm to ±100ppm	±15ppm	±500ppm	0 to 50°C	130Ω	Fundamental
		±20ppm		-10 to 60°C		
		±20ppm		-20 to 70°C		
		±25ppm		-30 to 80°C		
		±30ppm		-40 to 85°C		
		±100ppm		-55 to 105°C		
5.5 to <8.0MHz	±10ppm to ±100ppm	±15ppm	±500ppm	0 to 50°C	60Ω	Fundamental
		±20ppm		-10 to 60°C		
		±20ppm		-20 to 70°C		
		±25ppm		-30 to 80°C		
		±30ppm		-40 to 85°C		
		±100ppm		-55 to 105°C		
8.0 to <40.0MHz	±10ppm to ±100ppm	±15ppm	±500ppm	0 to 50°C	40Ω	Fundamental
		±20ppm		-10 to 60°C		
		±20ppm		-20 to 70°C		
		±25ppm		-30 to 80°C		
		±30ppm		-40 to 85°C		
		±100ppm		-55 to 105°C		
26.0 to <100.0MHz	±10ppm to ±100ppm	±15ppm	±500ppm	0 to 50°C	100Ω	3RD Overtone
		±20ppm		-10 to 60°C		
		±20ppm		-20 to 70°C		
		±25ppm		-30 to 80°C		
		±30ppm		-40 to 85°C		
		±100ppm		-55 to 105°C		

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This document was correct at the time of printing; please contact your local sales office for the latest version

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