

# **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 details

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

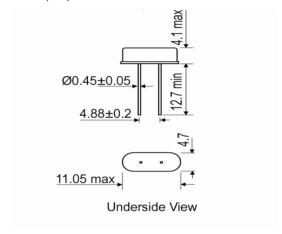
Pack Size 100

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

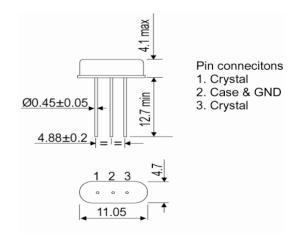
Pack Size 1,000

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### Outline (mm)



# -3L = 3 Lead



### **Sales Office Contact Details:**

UK: +44 (0)1460 270200 France: +33 (0)5 34 50 91 18 Germany: +49 (0)7264 9145-0 USA: +1 (0)408.273.4530 Email: info@iqdfrequencyproducts.com Web: www.iqdfrequencyproducts.com

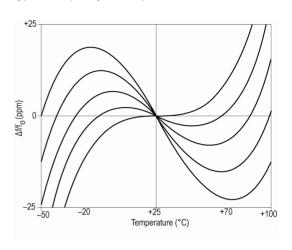
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# ■ Alternative packing options available

# **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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