

ISSUE 15; July 2023

## 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 = an additional centre mounted leg grounds the can
  - TW = an additional top mounted leg grounds the can
  - T = a truncated height of 11.1mm
- Please see our HC49 Gull-Wing for a SMD alternative
- Please contact our sales offices for more options

## Frequency Parameters

- Frequency: 1.8432MHz to 270.0MHz
- Frequency Tolerance:  $\pm 5.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Frequency Stability:  $\pm 5.00\text{ppm}$  to  $\pm 200.00\text{ppm}$
- Ageing:  $\pm 3\text{ppm}$  typical per year

## Electrical Parameters

- Load Capacitance: 10.0pF to 75.0pF
- Shunt Capacitance: 7pF max
- Drive Level: 1mW 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
- 55 to 125°C

## Environmental Parameters

- Shock: 981m/s<sup>2</sup>, 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-500Hz, 98.1m/s<sup>2</sup>, 30mins in 3 mutually perpendicular planes
- Storage Temperature Range: -55 to 125°C

## Ordering Information

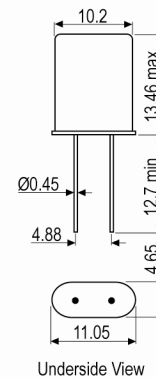
- Frequency\*
- Model\*
- Frequency Tolerance (@25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone\*
- Example:  
10.0MHz HC49  
50/50/-40 to 85C/10 FUND

## Compliance

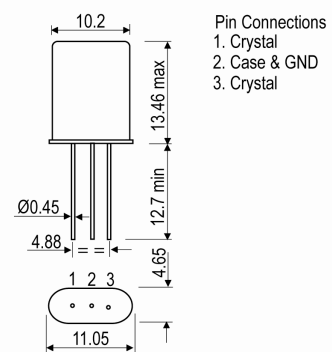
- RoHS Status (2015/863/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



Outline (mm) Standard 2 leg HC49 package



Outline (mm) -3L = 3 Lead



## Sales Office Contact Details:

UK: +44 (0)1460 270200

USA: +1.760 668 8935

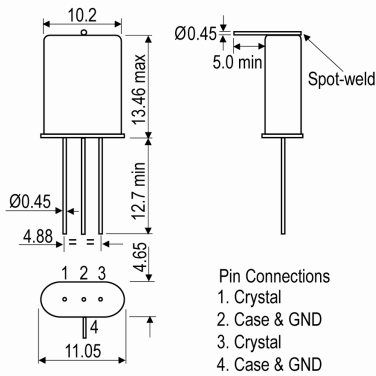
Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

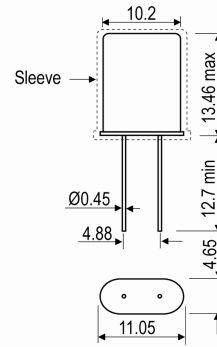
**Packaging Details**

- Pack Style: Reel      Tape & reel in accordance with EIA-468-C  
     Pack Size: 1,000
- Pack Style: Bulk      Loose in bulk pack  
     Pack Size: 100

**Outline (mm) -3L/TW = 3 Lead and Top Wire**



**Outline (mm) -SL = Sleeve**



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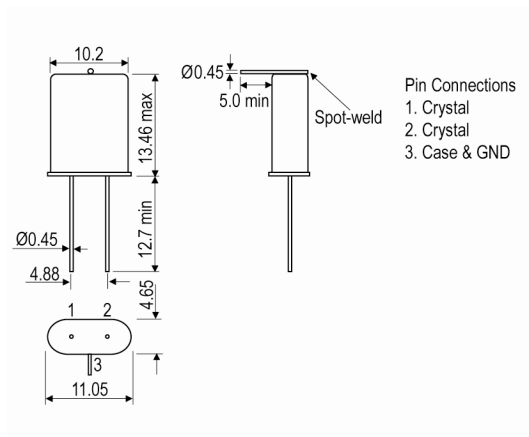
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Outline (mm) -TW = Top Wire



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Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability*	Over Tone Order	ESR
		°C	ppm		Ω
1.8432MHz	1.999999MHz	0 to 50	±15	Fundamental	800
		-10 to 60	±20		800
		-20 to 70	±20		800
		-30 to 80	±25		800
		-40 to 85	±30		800
		-55 to 105	±50		800
		-55 to 125	±100		800
2.0MHz	2.999999MHz	0 to 50	±15	Fundamental	600
		-10 to 60	±20		600
		-20 to 70	±20		600
		-30 to 80	±25		600
		-40 to 85	±30		600
		-55 to 105	±50		600
		-55 to 125	±100		600
3.0MHz	3.999999MHz	0 to 50	±15	Fundamental	150
		-10 to 60	±20		150
		-20 to 70	±20		150
		-30 to 80	±25		150
		-40 to 85	±30		150
		-55 to 105	±50		150
		-55 to 125	±100		150
4.0MHz	6.999999MHz	0 to 50	±15	Fundamental	100
		-10 to 60	±20		100
		-20 to 70	±20		100
		-30 to 80	±25		100
		-40 to 85	±30		100
		-55 to 105	±50		100
		-55 to 125	±100		100
7.0MHz	9.999999MHz	0 to 50	±15	Fundamental	50
		-10 to 60	±20		50
		-20 to 70	±20		50
		-30 to 80	±25		50
		-40 to 85	±30		50
		-55 to 105	±50		50
		-55 to 125	±100		50
10.0MHz	36.0MHz	0 to 50	±15	Fundamental	35
		-10 to 60	±20		35
		-20 to 70	±20		35
		-30 to 80	±25		35
		-40 to 85	±30		35
		-55 to 105	±50		35
		-55 to 125	±100		35
21.0MHz	90.0MHz	0 to 50	±15	3rd Overtone	40
		-10 to 60	±20		40
		-20 to 70	±20		40

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Frequency Min	Frequency Max	Temperature Range	Stability*	Over Tone Order	ESR
		°C	ppm		Ω
		-30 to 80	±25		40
		-40 to 85	±30		40
		-55 to 105	±50		40
		-55 to 125	±100		40
60.0MHz	150.0MHz	0 to 50	±10	5th Overtone	70
		-10 to 60	±15		70
		-20 to 70	±15		70
		-30 to 80	±20		70
		-40 to 85	±25		70
		-55 to 105	±50		70
		-55 to 125	±50		70
85.0MHz	210.0MHz	0 to 50	±5	7th Overtone	100
		-10 to 60	±5		100
		-20 to 70	±10		100
		-30 to 80	±20		100
		-40 to 85	±25		100
		-55 to 105	±50		100
		-55 to 125	±50		100
110.0MHz	270.0MHz	0 to 50	±5	9th Overtone	150
		-10 to 60	±5		150
		-20 to 70	±10		150
		-30 to 80	±20		150
		-40 to 85	±25		150
		-55 to 105	±50		150
		-55 to 125	±50		150

\*Stability Maximum values ±200ppm

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

[Click to view latest version on our website.](#)

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