

ISSUE 15; September 2019

### 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

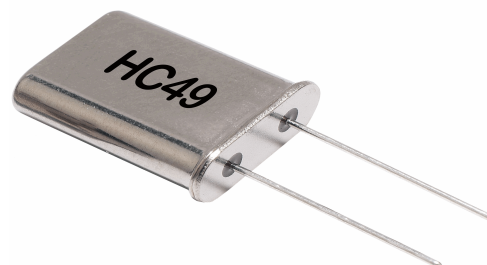
- Shock: 981m/s<sup>2</sup>, 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-500Hz, 98.1m/s<sup>2</sup>, 30mins in 3 mutually perpendicular planes
- Storage Temperature Range: -55 to 125°C

### Ordering Information

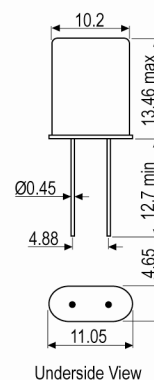
- Frequency\*  
Model\*  
Frequency Tolerance (@25°C)\*  
Frequency Stability (over operating temperature range)\*  
Operating Temperature Range\*  
Load Capacitance\*  
Overtone\*
- Example:  
10.0MHz HC49  
50/50/-40 to 85C/10 FUND

### Compliance

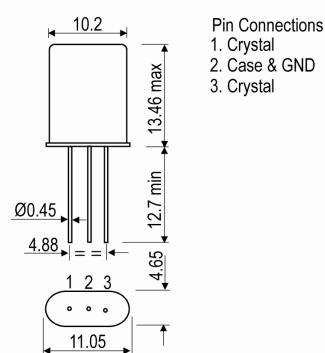
- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



Outline (mm) Standard 2 leg HC49 package



Outline (mm) -3L = 3 Lead



### Sales Office Contact Details:

UK: +44 (0)1460 270200  
Germany: 0800 1808 443

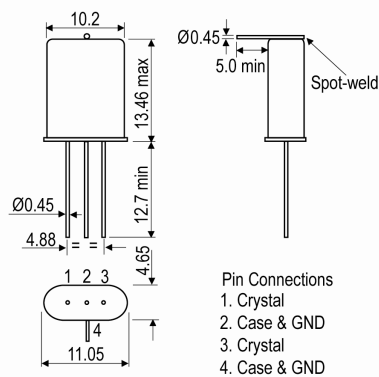
France: 0800 901 383  
USA: +1.760.318.2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

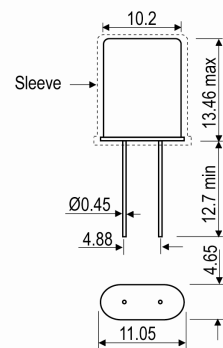
**Packaging Details**

- Pack Style: R250     Tape & reel in accordance with EIA-481-D  
Pack Size: 250
- 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
- Pack Style: R500     Tape & reel in accordance with EIA-468-C  
Pack Size: 500
- Pack Style: Ammo     Tape & ammo in accordance with  
Pack Size: 1,000     EIA-468-C
- Pack Style: Cutt     In tape, cut from a reel  
Pack Size: 100

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



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



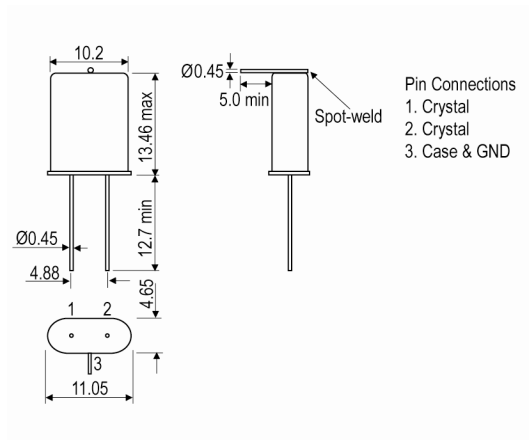
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France: 0800 901 383  
 USA: +1.760.318.2824

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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 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±100	Fundamental	800
2.0MHz	2.999999MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±100	Fundamental	600
3.0MHz	3.999999MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±100	Fundamental	150
4.0MHz	6.999999MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±100	Fundamental	100
7.0MHz	9.999999MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±100	Fundamental	50
10.0MHz	36.0MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105 -55 to 125	±15 ±20 ±20 ±25 ±30 ±50 ±100	Fundamental	35
21.0MHz	90.0MHz	0 to 50 -10 to 60 -20 to 70	±15 ±20 ±20	3rd Overtone	40

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

\*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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