



ISSUE 15; September 2014 - 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 = 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
- -3L 3 Lead
- Additional 3rd leg added to facilitate grounding of the metal can
- -3L/TW 3 Lead and Top Wire
- Additional 3rd leg and Top Wire added to facilitate grounding of the metal can
- -SL Sleeve
- An insulating sleeve protects the metal can from electrical contact
- -TW Top Wire
- Additional Top Wire added to facilitate grounding of the metal can
- -WME With fitted melinex insulating washer
- -WMY With fitted mylar insulating washer
- -WP With fitted PTFE insulating washer
- -WT With fitted teflon insulating washer

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

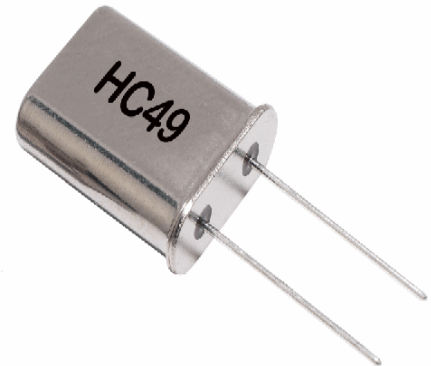
- Load Capacitance 10.0pF to 75.0pF
- Shunt Capacitance 7pF max
- Drive Level 1mW max

Operating Temperature Ranges

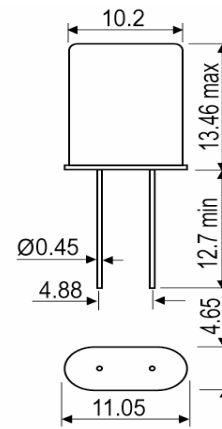
- 0 to 50°C
- -10 to 60°C
- -20 to 70°C
- -30 to 80°C
- -40 to 85°C
- -55 to 105°C
- -55 to 125°C

Environmental Parameters

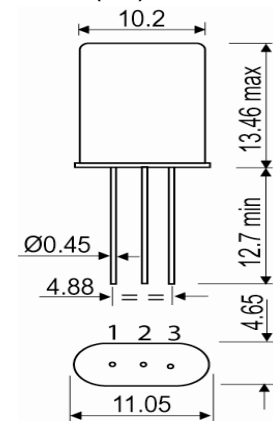
- Shock: 981m/s², 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-500Hz, 98.1m/s², 30mins in 3 mutually perpendicular planes
- Storage Temperature Range: -55 to 125°C



Outline (mm)



Outline (mm) -3L = 3 Lead



Pin Connections
1. Crystal
2. Case & GND
3. Crystal

Sales Office Contact Details:

UK: +44 (0)1460 270200

France: +33 (0)5 34 50 91 18

Email: info@iqdfrequencyproducts.com

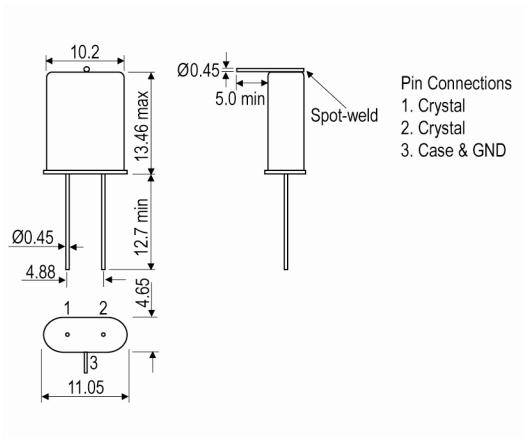
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Outline (mm) -TW = Top Wire



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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 -30 to 80 -40 to 85	±15 ±20 ±20 ±25 ±30	3rd Overtone	40

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Frequency Min	Frequency Max	Temperature Range	Stability*	Over Tone Order	ESR
		°C	ppm		Ω
		-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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