



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 3.2 to 100.0MHz
- Frequency Stability $\pm 15.00\text{ppm}$
- Frequency Tolerance $\pm 10\text{ppm}$ to $\pm 100\text{ppm}$

General Specification

- Load Capacitance (CL) 10.0pF to 75.0pF or Series
- Drive Level 500 μ W max
- Ageing $\pm 5\text{ppm}$ 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: $\pm 1\text{ppm}$ available on request

Environmental Parameters

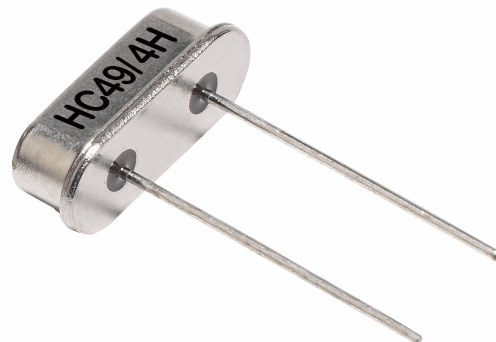
- Storage Temperature Range: -55 to 125°C
- Shock: 981m/s², 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-500Hz, 98.1m/s², 30mins in 3 mutually perpendicular planes

Ordering Information

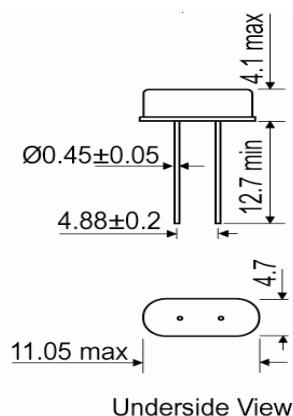
- Frequency*
Model*
Frequency Tolerance (@ 25°C)*
Frequency Stability (over operating temperature range)*
Operating Temperature Range*
Load Capacitance*
Overtone*
(*minimum required)
- Example
10.0MHz HC49/4H
50/50/-40 to 85C/10 FUND

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

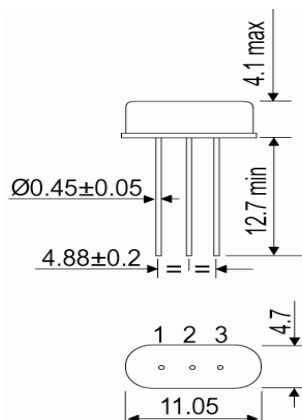


Outline (mm)



Underside View

-3L = 3 Lead



- Pin connections
1. Crystal
 2. Case & GND
 3. Crystal

Sales Office Contact Details:

UK: +44 (0)1460 270200
Germany: +49 (0)7264 9145-0

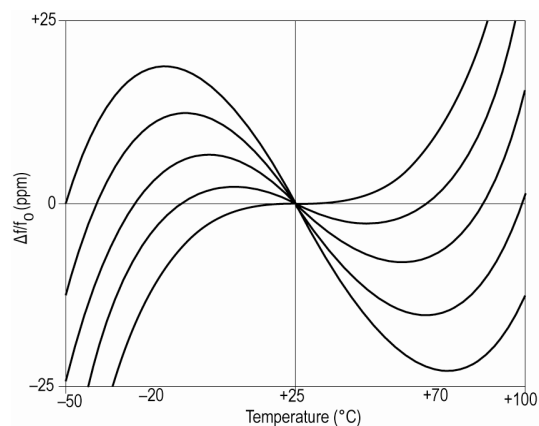
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- Alternative packing options available

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 ±20ppm ±20ppm ±25ppm ±30ppm ±100ppm	±500ppm	0 to 50°C -10 to 60°C -20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C	300Ω	Fundamental
4.0 to <5.5MHz	±10ppm to ±100ppm	±15ppm ±20ppm ±20ppm ±25ppm ±30ppm ±100ppm	±500ppm	0 to 50°C -10 to 60°C -20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C	130Ω	Fundamental
5.5 to <8.0MHz	±10ppm to ±100ppm	±15ppm ±20ppm ±20ppm ±25ppm ±30ppm ±100ppm	±500ppm	0 to 50°C -10 to 60°C -20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C	60Ω	Fundamental
8.0 to <40.0MHz	±10ppm to ±100ppm	±15ppm ±20ppm ±20ppm ±25ppm ±30ppm ±100ppm	±500ppm	0 to 50°C -10 to 60°C -20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C	40Ω	Fundamental
26.0 to <100.0MHz	±10ppm to ±100ppm	±15ppm ±20ppm ±20ppm ±25ppm ±30ppm ±100ppm	±500ppm	0 to 50°C -10 to 60°C -20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C	100Ω	3RD Overtone

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