

ISSUE 19; January 2025

Description

- Industry standard low cost SMD version of the HC49/4H crystal.
- Resistance welded, hermetically sealed in an inert atmosphere, glass to metal seals on leads.
- Lead wires are mounted onto a plastic former to create a gull wing mount.
- Low profile versions available please contact our sales offices for details.

Frequency Parameters

- Frequency 3.2MHz to 100.0MHz
- Frequency Tolerance $\pm 10.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Tolerance Condition @25°C
- Frequency Stability $\pm 15.00\text{ppm}$ to $\pm 500.00\text{ppm}$
- Ageing $\pm 5\text{ppm typ per year @25°C}$

Electrical Parameters

- Load Capacitance (CL) 10.0pF to 75.0pF
- Shunt Capacitance (C0) 7pF max
- Drive Level 500µW 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

Environmental Parameters

- Shock: MIL-STD-202 Method 213, Condition C, Half sine shock pulse peak acceleration of 100g, pulse duration 6ms.
- Vibration: MIL-STD-202 Method 204, 5g for 20 minutes, 12 cycles in each of the 3 orientations, 10~2000Hz
- Storage Temperature Range: -55 to 125°C

Manufacturing Details

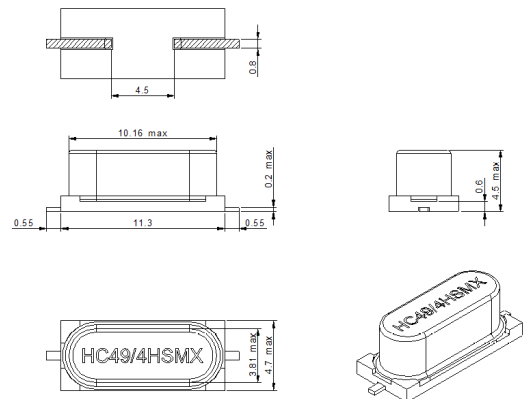
- RoHS Terminations Sn, Ag & Cu
- RoHS Reflow 260°C max for 10 seconds

Ordering Information

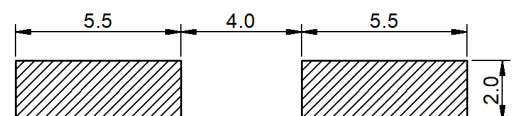
- Frequency*
- Model*
- Frequency Tolerance (@ 25°C)*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance*
- Overtone*
- (*minimum required)
- Example
- 10.00MHz HC49/4HSMX
- 50/50/-40 to 85C/10 FUND



Outline (mm)



Recommended Solder Pad Layout



Sales Office Contact Details:

UK: +44 (0)1460 270200

Email: info@iqdfrequencyproducts.com

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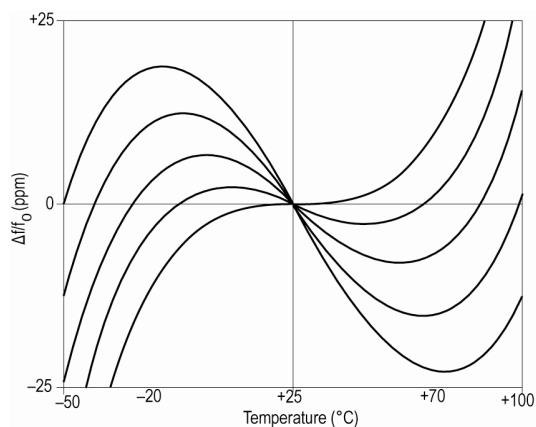
Compliance

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

Packaging Details

- Tape & reel in accordance with EIA-481
Quantities below the standard reel size to be supplied on cut tape.
Standard Pack Quantity: 1,000

Typical Frequency vs Temperature Curves



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Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (min)*	Over Tone Order	ESR
		°C	ppm		Ω
3.2MHz	3.999999MHz	0 to 50	±15	Fundamental	300
		-10 to 60	±20		300
		-20 to 70	±20		300
		-30 to 80	±25		300
		-40 to 85	±30		300
		-55 to 105	±100		300
4.0MHz	5.499999MHz	0 to 50	±15	Fundamental	130
		-10 to 60	±20		130
		-20 to 70	±20		130
		-30 to 80	±25		130
		-40 to 85	±30		130
		-55 to 105	±100		130
5.5MHz	7.999999MHz	0 to 50	±15	Fundamental	60
		-10 to 60	±20		60
		-20 to 70	±20		60
		-30 to 80	±25		60
		-40 to 85	±30		60
		-55 to 105	±100		60
8.0MHz	39.999999MHz	0 to 50	±15	Fundamental	40
		-10 to 60	±20		40
		-20 to 70	±20		40
		-30 to 80	±25		40
		-40 to 85	±30		40
		-55 to 105	±100		40
27.0MHz	100.0MHz	0 to 50	±15	3rd Overtone	100
		-10 to 60	±20		100
		-20 to 70	±20		100
		-30 to 80	±25		100
		-40 to 85	±30		100
		-55 to 105	±100		100

*Stability Maximum values ±500ppm

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

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