

Crystal Specification

Model: HC49/4HSMX

ISSUE 17; September 2012 - RoHS 2011/65/EU

Description

■ Industry standard low cost SMD crystal

SMD version of the HC49/4H

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

Stock parts available

Frequency Range

■ Frequency■ Frequency Stability±15.00ppm

■ Frequency Tolerance ±10ppm to ±100ppm

General Specification

■ Load Capacitance (CL) 10.0pF to 75.0pF or Series

■ Drive Level 500µW max

■ Ageing ±5ppm typ per year @ 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

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

Ordering Information

■ Frequency*

Model*

Frequency Tolerance (@25°C)*

Frequency Stability (over operating temperature range)*

Operating Temperature Range*

Load Capacitance*

Overtone*

Example

10.00MHz HC49/4HSMX 50/50/-40 to 85C/10 FUND

Packing Details

■ Pack Style: **Bulk** Loose in bulk pack

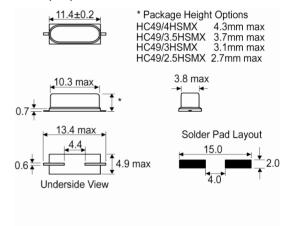
Pack Size 100

■ Pack Style: Reel Tape and reel in accordance with EIA-481-D

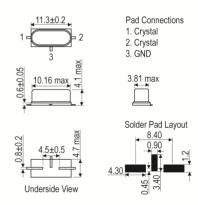
Pack Size 1,000
■ Alternative packing options available

HC49/4HSMX

Outline (mm)



-3L = 3 leg ground centre lead



Sales Office Contact Details:

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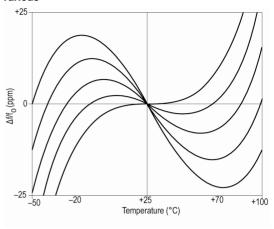
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Typical Frequency vs Temperature Curves for various



Electrical Specification - maximum limiting values

Frequency Range	Frequency Tolerance	Stability		Temperature Range	ESR Max	Vibration Mode
		Min	Max	3		IVIOUE
3.2 to <4.0MHz	±10ppm to ±100ppm	±15ppm	±500ppm	0 to 50°C	300Ω	Fundamental
		±20ppm		-10 to 60°C		
		±20ppm		-20 to 70°C		
		±25ppm		-30 to 80°C		
		±30ppm		-40 to 85°C		
		±100ppm		-55 to 105°C		
4.0 to <5.5MHz	±10ppm to ±100ppm	±15ppm	±500ppm	0 to 50°C	130Ω	Fundamental
		±20ppm		-10 to 60°C		
		±20ppm		-20 to 70°C		
		±25ppm		-30 to 80°C		
		±30ppm		-40 to 85°C		
		±100ppm		-55 to 105°C		
5.5 to <8.0MHz	±10ppm to ±100ppm	±15ppm	±500ppm	0 to 50°C	60Ω	Fundamental
		±20ppm		-10 to 60°C		
		±20ppm		-20 to 70°C		
		±25ppm		-30 to 80°C		
		±30ppm		-40 to 85°C		
		±100ppm		-55 to 105°C		
8.0 to <40.0MHz	±10ppm to ±100ppm	±15ppm	±500ppm	0 to 50°C	40Ω	Fundamental
		±20ppm		-10 to 60°C		
		±20ppm		-20 to 70°C		
		±25ppm		-30 to 80°C		
		±30ppm		-40 to 85°C		
		±100ppm		-55 to 105°C		
26.0 to <100.0MHz	±10ppm to ±100ppm	±15ppm	±500ppm	0 to 50°C	100Ω	3RD Overton
		±20ppm		-10 to 60°C		
		±20ppm		-20 to 70°C		
		±25ppm		-30 to 80°C		
		±30ppm		-40 to 85°C		
		±100ppm		-55 to 105°C		

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

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