ISSUE 17; March 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 details
  Stock parts available

Frequency Range

Frequency	3.2000 to 100.0Mhz
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

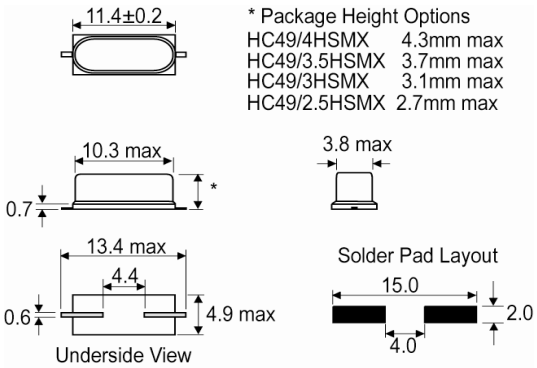
Environmental Parameters

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

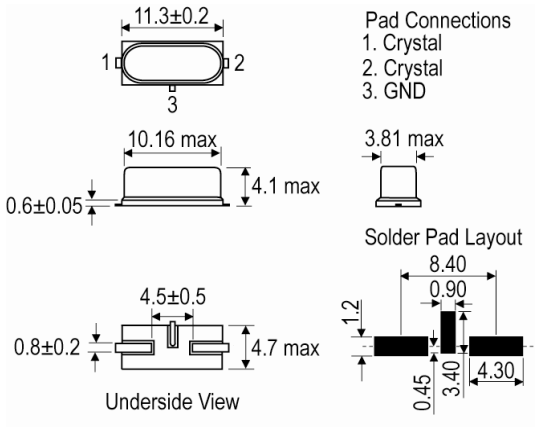
Ordering Information

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

Outline (mm)



-3L = 3 leg ground centre lead



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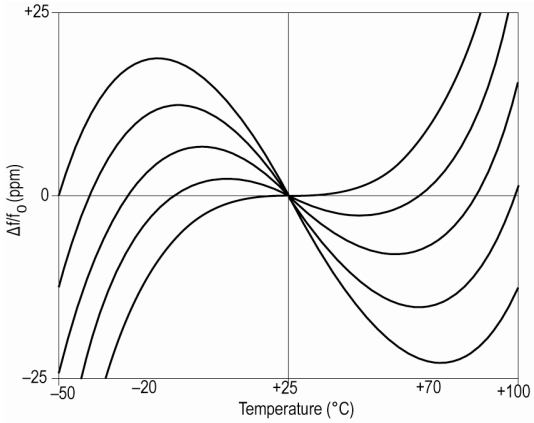
Packing Details

- 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

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			
3.2 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	±500ppm	0 to 50°C -10 to 60°C	100Ω	3RD Overtone

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Electrical Specification - maximum limiting values

Frequency Range	Frequency Tolerance	Stability		Temperature Range	ESR Max	Vibration Mode
		Min	Max			
		±20ppm ±25ppm ±30ppm ±100ppm		-20 to 70°C -30 to 80°C -40 to 85°C -55 to 105°C		

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

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