



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 details
- Stock parts available

**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 $\mu\text{W}$  max
- Ageing  $\pm 5\text{ppm}$  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/s<sup>2</sup>, 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-500Hz, 98.1m/s<sup>2</sup>, 30mins in 3 mutually perpendicular planes
- Storage Temperature Range: -55 to 125°C

**Ordering Information**

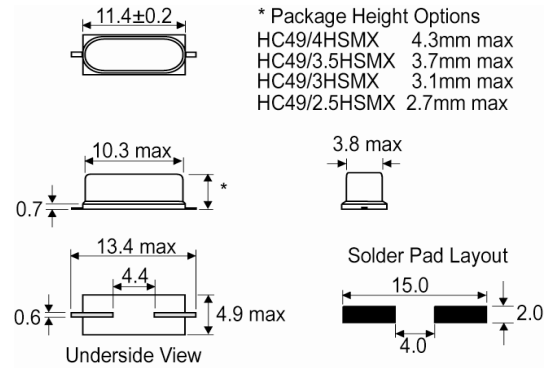
- Frequency\*
- Model\*
- Frequency Tolerance (@25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone\*
- Example  
10.00MHz HC49/4HSMX  
50/50/-40 to 85C/10 FUND

**Packing Details**

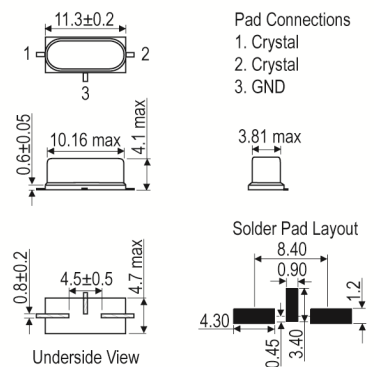
- Pack Style: **Bulk** Loose in bulk pack  
Pack Size 100
- Pack Style: **Reel** Tape and reel in accordance with EIA-481-D  
Pack Size 1,000
- Alternative packing options available



**Outline (mm)**



**-3L = 3 leg ground centre lead**



**Sales Office Contact Details:**

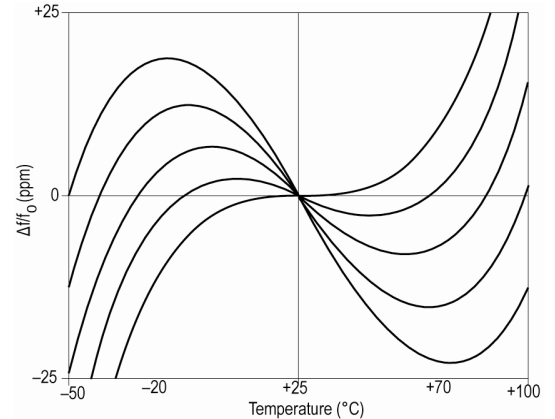
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**Typical Frequency vs Temperature Curves for various**



**Electrical Specification - maximum limiting values**

Frequency Range	Frequency Tolerance	Stability		Temperature Range	ESR Max	Vibration Mode
		Min	Max			
3.2 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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*This document was correct at the time of printing; please contact your local sales office for the latest version*

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