

ISSUE 17; October 2015

### 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
- Stock parts available

### 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  $\pm 2^\circ\text{C}$
- Frequency Stability:  $\pm 15.00\text{ppm}$  to  $\pm 500.00\text{ppm}$
- Ageing:  $\pm 5\text{ppm typ per year @ } 25^\circ\text{C}$

### Electrical Parameters

- Load Capacitance (CL): 10.0pF to 75.0pF
- Shunt Capacitance (C0): 7pF max
- Drive Level: 500 $\mu\text{W}$  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

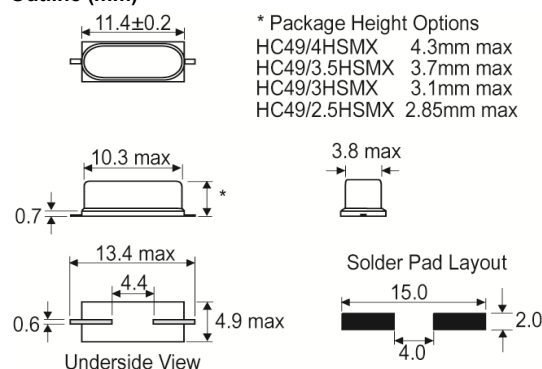
- Frequency\*
- Model\*
- Frequency Tolerance (@ 25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone\*
- (\*minimum required)
- Example
- 10.00MHz HC49/4HSMX
- 50/50/-40 to 85C/10 FUND

### Compliance

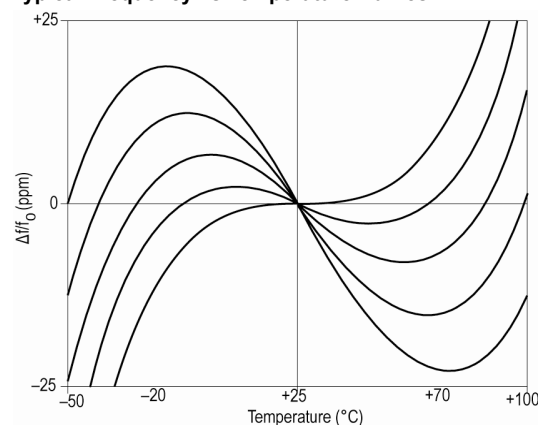
- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



### Outline (mm)



### Typical Frequency vs Temperature Curves



### Sales Office Contact Details:

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**Packaging Details**

- Pack Style: R250    Tape & reel of 250pcs  
Pack Size: 250
- Pack Style: R500    Tape & reel of 500pcs  
Pack Size: 500
- Pack Style: Bulk    Loose in bulk pack  
Pack Size: 100
- Pack Style: Cutt    In tape, cut from a reel  
Pack Size: 100
- Pack Style: Reel    Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000

**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 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105	±15 ±20 ±20 ±25 ±30 ±100	Fundamental	300
4.0MHz	5.499999MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105	±15 ±20 ±20 ±25 ±30 ±100	Fundamental	130
5.5MHz	7.999999MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105	±15 ±20 ±20 ±25 ±30 ±100	Fundamental	60
8.0MHz	39.999999MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105	±15 ±20 ±20 ±25 ±30 ±100	Fundamental	40
26.0MHz	100.0MHz	0 to 50 -10 to 60 -20 to 70 -30 to 80 -40 to 85 -55 to 105	±15 ±20 ±20 ±25 ±30 ±100	3rd Overtone	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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