

ISSUE 17; April 2016

**Description**

- Low profile version of the HC49/4HSMX SMD 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
- Other profile versions available please contact our sales offices for details
- 3L 3 leg version with center ground lead

**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°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: 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**

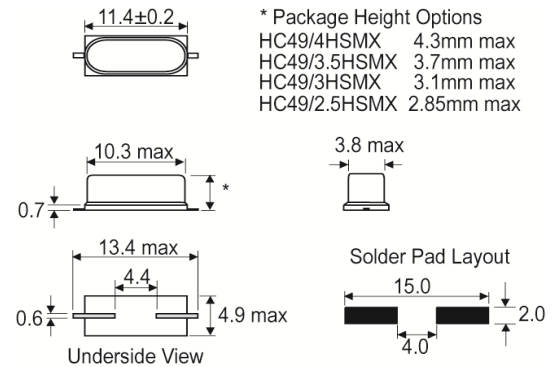
- Frequency\*
- Model\*
- Frequency Tolerance (@ 25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone\*
- (\*minimum required)
- Example  
10.00MHz HC49/3.5HSMX  
50/50/-40 to 85C/10 FUND

**Compliance**

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

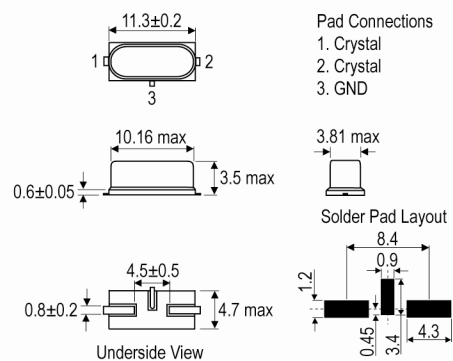


**Outline (mm)**



\* Package Height Options  
 HC49/4HSMX 4.3mm max  
 HC49/3.5HSMX 3.7mm max  
 HC49/3HSMX 3.1mm max  
 HC49/2.5HSMX 2.85mm max

**Outline (mm) -3L = 3 leg version with center ground lead**



Pad Connections  
 1. Crystal  
 2. Crystal  
 3. GND

**Sales Office Contact Details:**

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**Packaging Details**

- Pack Style: Bulk      Loose in bulk pack  
   Pack Size: 100
- Pack Style: Cutt      In tape, cut from a reel  
   Pack Size: 10
- 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.*

[Click to view latest version on our website.](#)

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