

ISSUE 2; April 2016

**Description**

- Resistance welded, hermetically sealed metal package sealed in an inert atmosphere with glass to metal seals securing the lead wires and suitable for automotive applications. Qualified to AEC-Q200 and with TS16949 release.  
Holders suffixed '-3L' have a centre third wire which grounds the case.
- Holders suffixed 'Gull-Wing' have a metal jacket for surface mounting.
- 3L 3 Lead
- Gull-Wing Gull-Wing
- Please Note: For the Gull-Wing variant the tape and reel will be in accordance with EIA-481-D, pack size 500pcs.

**Frequency Parameters**

- Frequency 3.01MHz to 100.0MHz
- Frequency Tolerance  $\pm 50.00\text{ppm}$
- Tolerance Condition @ 25°C
- Frequency Stability  $\pm 50.00\text{ppm}$  to  $\pm 150.00\text{ppm}$
- Ageing  $\pm 5\text{ppm}$  max per year @ 25°C

**Electrical Parameters**

- Load Capacitance (CL) 3.0pF to 75.0pF
- Shunt Capacitance (C0) 7pF max
- Drive Level 50µW typ, 300µW max

**Operating Temperature Ranges**

- 40 to 85°C
- 40 to 125°C

**Environmental Parameters**

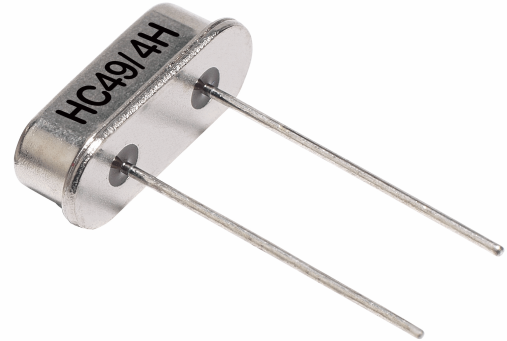
- Storage Temperature Range: -45 to 130°C
- Qualified to AEC-Q200.

**Ordering Information**

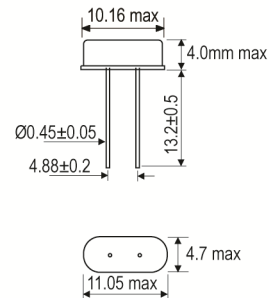
- Frequency\*
- Model\*
- Variant\*
- Frequency Tolerance (@ 25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone\*
- (\*minimum required)
- Example  
10.0MHz HC49/4H AUTO  
50/100/-40 to 125C/16 FUND

**Compliance**

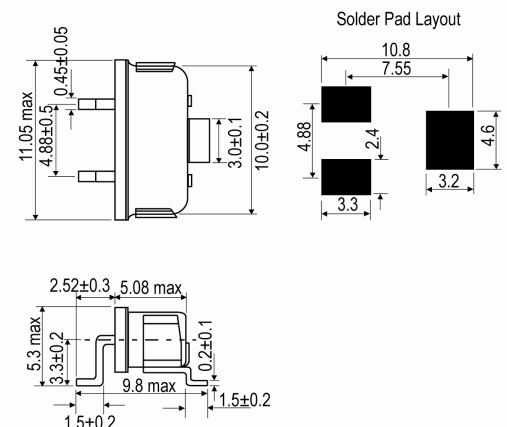
- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



Outline (mm)



Outline (mm) -Gull-Wing = Gull-Wing



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**Packaging Details**

- Pack Style: Reel      Tape and reel in accordance with  
     Pack Size: 1,000      EIA-468-C
- Pack Style: Bulk      Loose in bulk pack  
     Pack Size: 100

**Electrical Specification - maximum limiting values**

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
3.01MHz	3.499999MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	300
3.5MHz	4.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	150
4.000001MHz	4.5MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	130
4.500001MHz	5.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	110
5.000001MHz	6.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	80
6.000001MHz	7.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	60
7.000001MHz	10.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	50
10.000001MHz	13.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	40
13.000001MHz	50.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	30
26.0MHz	100.0MHz	-40 to 85 -40 to 125	±50 ±100	3OT	100

\*Stability Maximum values ±150ppm

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