

**Customer Part:**
**Description**

- Industry standard 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
- Model HC49/4HSMX
- Model Issue number 17

**Frequency Parameters**

- Frequency 20.0MHz
- Frequency Tolerance  $\pm 30.00\text{ppm}$
- Tolerance Condition @25°C  $\pm 2^\circ\text{C}$
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range -10.00 to 60.00°C
- Overtone Order Fundamental
- Ageing  $\pm 5\text{ppm typ per year @}25^\circ\text{C}$

**Electrical Parameters**

- Load Capacitance (CL) 16.00pF
- Shunt Capacitance (C0) 7pF max
- Drive Level 500µW max
- ESR 40.00Ω max

**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
- RoHS Terminations
- RoHS Reflow Temp 260°C max for 10s max

**Compliance**

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

**Packaging Details**

- Pack Style: Reel Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000
- *Alternative packing option available*


**Outline (mm)**

**Typical Frequency vs Temperature Curves**

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