

# HC49/4H SMX CRYSTALS

ISSUE 9; 18 OCTOBER 1999

## Delivery Options

- Common frequencies are available from stock. Please see p143 for details

## Holder Style

- HC49/4H SMX crystals are resistance welded, hermetically sealed in an inert atmosphere with glass to metal seals securing the lead wires. The lead wires are formed into a gull wing and mounted on a plastic former
- Lower profiles available, please contact our sales office

## General Specifications

- Load Capacitance ( $C_L$ ): 10pF to 75pF or Series
- Drive Level: 0.5mW max
- Static Capacitance ( $C_0$ ): 9pF max
- Ageing:  $\pm 3$ ppm typical per year

## Standard Frequencies

- 3.579545MHz, 3.68640MHz, 4.0MHz, 4.91520MHz, 5.0MHz, 6.0MHz, 7.37280MHz, 8.0MHz, 8.1920MHz, 9.83040MHz, 10.0MHz, 11.05920MHz, 12.0MHz, 14.318180MHz, 14.74560MHz, 15.360MHz, 16.0MHz, 18.4320MHz, 19.66080MHz, 20.0MHz

## Standard Frequency Tolerances and Stabilities

- $\pm 50$ ppm,  $\pm 100$ ppm

## Operating Temperature Ranges

- 0 to 50°C
- 10 to 60°C
- 20 to 70°C
- 30 to 80°C

## Storage Temperature Range

- 40 to 85°C

## Environmental Specification

- Shock: 981m/s<sup>2</sup> for 6ms, three shocks in each direction along three mutually perpendicular planes
- Vibration: 10 to 60Hz 0.75mm displacement, 60 to 500Hz 98.1m/s<sup>2</sup> acceleration, 30 minutes in each of three mutually perpendicular planes

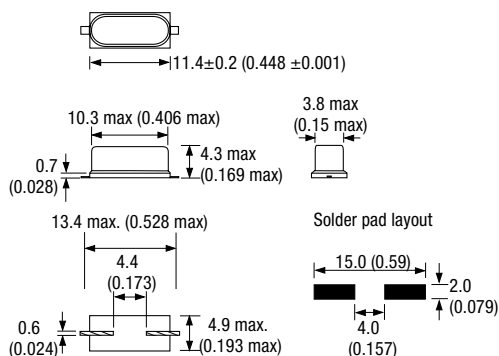
## Marking

- Frequency only

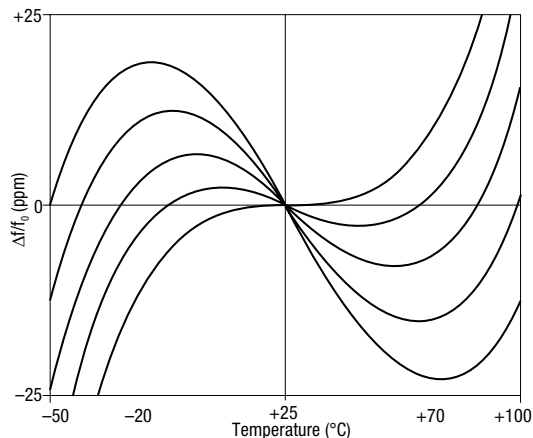
## Minimum Order Information Required

- Frequency + Holder + Frequency Tolerance @ 25°C
- + Frequency Stability + Operating Temperature Range + Circuit Condition + Overtone Order

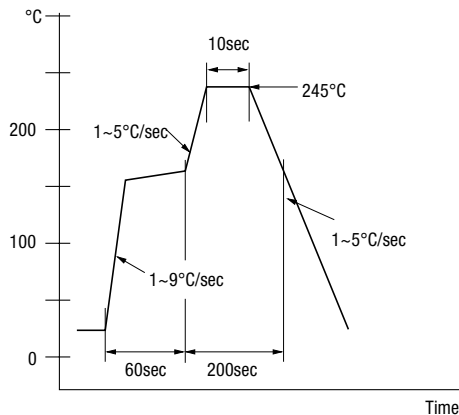
## Outline in mm (inches)



## Typical Frequency vs Temperature Curves for various angles of AT-cut crystals



## Typical Solder Condition - Infrared Reflow



**SURFACE MOUNT  
QUARTZ CRYSTALS**

**SURFACE MOUNT  
QUARTZ CRYSTALS**

**Outline in mm (inches) - Reel (scale 1:8)**

