

# 90SMX & 91SMX Crystals

ISSUE 6; 28 AUGUST 1996

## Delivery Options

- Please contact our sales office for current leadtimes

## Holder Style

- 90SMX & 91SMX surface mount crystals are plastic encapsulated

## General Specifications

- Load Capacitance (CL): 6pF and 12.5pF standard
- Drive Level: 1.0µW max

## Packaging

- 90SMX & 91SMX surface mount crystals are available bulk packed or on tape and reel

## Standard Frequency Tolerance

- ±20ppm

## Operating Temperature Ranges

- 0 to 50°C    -30 to 80°C
- 10 to 60°C    -40 to 90°C
- 20 to 70°C

## Storage Temperature Range

- 55 to 125°C

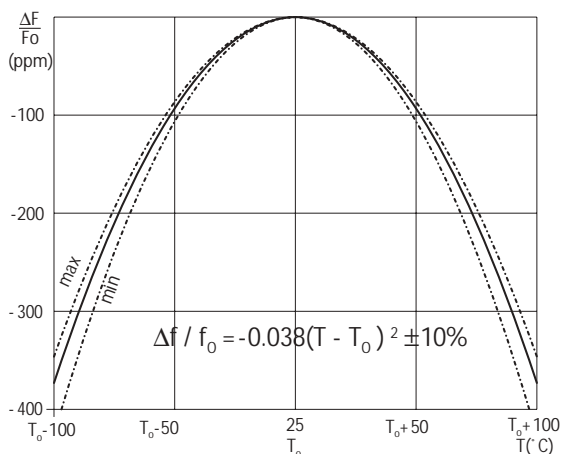
## Marking

- Frequency Indicator + Date Code

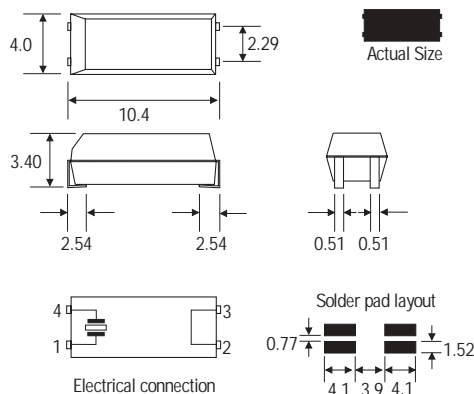
## Minimum Order Information Required

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

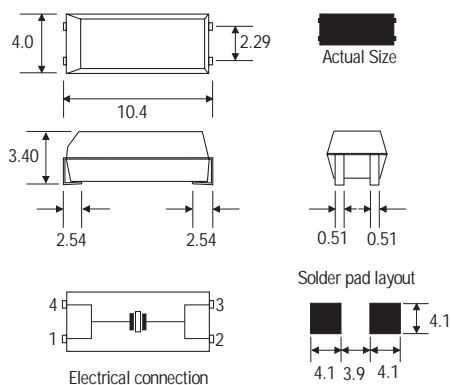
## Frequency Temperature Curve



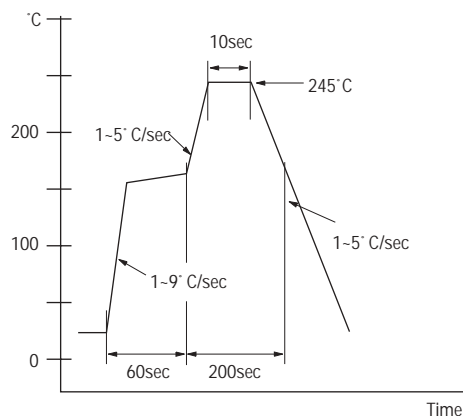
## Outline in mm - 90SMX (scale 2:1)



## Outline in mm - 91SMX (scale 2:1)



## Typical Solder Condition - Infrared Reflow



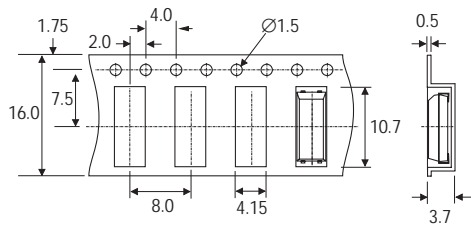
SURFACE MOUNT QUARTZ CRYSTALS

Electrical Specification – maximum limiting values

Frequency Range	Frequency Tolerance @ 25°C ±2°C	Operating Temperature Range	Frequency Stability Available Over Operating Temperature		ESR max.	Vibration Mode
32.7680kHz	±10ppm to ±100ppm	0 to 50°C	-25ppm	-100ppm	60kΩ	Fundamental AT cut
		-10 to 60°C	-50ppm	-100ppm		
		-20 to 70°C	-85ppm	-100ppm		
		-30 to 80°C	-150ppm	-300ppm		
		-40 to 90°C	-180ppm	-500ppm		

SURFACE MOUNT  
QUARTZ CRYSTALS

Outline in mm - Tape



Outline in mm - Reel (scale 1:7)

