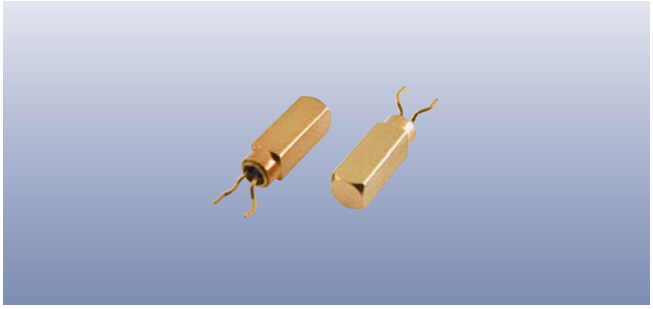
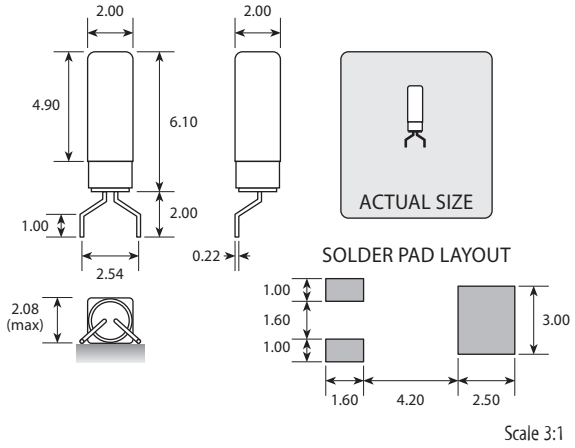
SM Watch Crystal

MS1V





Scale 3:1

Features

- **Unique square profile case for pick & place**
- **Low cost**
- **Large stocks held at all times**
- **Miniature size for high density applications**
- **High shock & vibration resistance**
- **Wide temperature range**

Standard Frequencies

Frequencies in kHz	
32.00000	60.00000
32.76800	75.00000
38.40000	76.80000
40.00000	77.50000

Specifications

Parameters	Product MS1V	Option Codes
Termination: Gold flashed leads, 2.54mm pitch	■	T1K
Frequency range: 32.768kHz 32.0 ~ 200kHz	■ □	 specify
Calibration tolerance: ±20ppm ±30ppm ±100ppm	■ □ □	 specify
Operating temperature range: -40 to +85°C	■	
Storage temperature range: -55 to +125°C	■	
Circuit condition: 12.5pF other values	■ □	 specify
Static capacitance (C_0): 0.9pF typ	■	
Motional capacitance (C_1): 2.1fF typ	■	
Equivalent series resistance: 45kΩ typ, 60kΩ max @ 25°C	■	
Ageing: ±3ppm max first year	■	
Drive level: 1.0µW max	■	
Turnover temperature (T_0): +25°C ±5°C	■	
Frequency / temp coefficient: -0.035ppm/°C^2 ±10% typ	■	
Shock resistance: ±5ppm max 5,000g, 0.3ms, ½ sine	■	
Vibration resistance: ±5ppm max 20g, 10.0 ~ 2,000Hz	■	
Soldering conditions: 260°C, 20sec max	■	

■ Standard. □ Optional - Please specify required code(s) when ordering

Ordering Information

Product name + termination + frequency + calibration tol.
eg: **MS1V-T1K 32.768kHz ±20ppm** (standard)
Option code X (eg MS1V-T1K/X) denotes a custom spec.

- Available on T&R - 8k pcs per reel.
- Refer to our website for T&R and soldering details.
- Specifications vary by frequency. Specifications shown are for 32.768kHz.
- Pad compatible with many standard watch crystals (eg MC-306, MC-406, SP-T1A, SP-T2A, CM-200S, CM-202S).