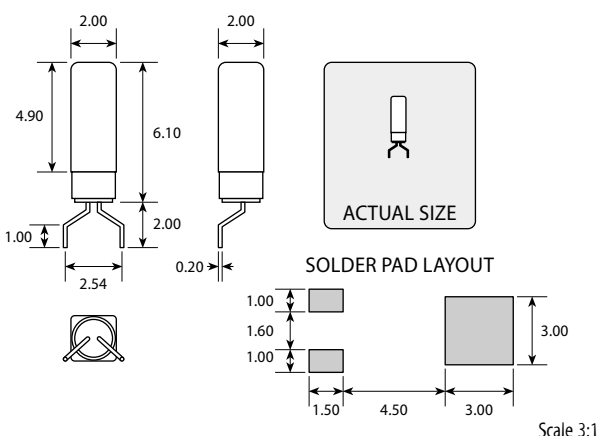
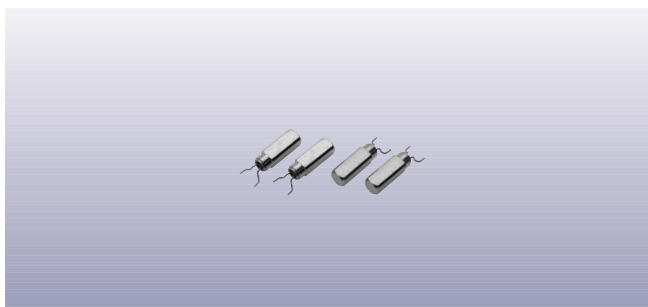




Features

- 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

Specifications

Parameters	Product MS1V-TK	Option Codes
Frequency range: 32.768kHz 32.0 ~ 200kHz	☒ ☐	specify
Calibration tolerance: ±20ppm ±30ppm ±100ppm	☒ ☐ ☐	specify
Operating temperature range: -40 to +85°C -55 to +85°C	☒ ☐	I M
Circuit condition: 12.5pF other values	☒ ☐	specify
Static capacitance (C₀): 1.0pF typ	☒	
Motional capacitance (C₁): 2.25fF typ	☒	
Equivalent series resistance: 60kΩ typ, 80kΩ max	☒	
Ageing: ±3ppm max first year	☒	
Drive level: 1.0μW max	☒	
Turnover temperature (T₀): +25°C ±5°C	☒	
Frequency / temp coefficient: -0.038ppm/°C ² typ	☒	
Shock resistance: ±5ppm max 5,000g, 0.3ms, ½ sine	☒	
Vibration resistance: ±5ppm max 20g, 10.0 ~ 2,000Hz	☒	

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

Ordering Information

Product name + option codes + frequency + calibration tolerance

eg: **MS1V-TK/I 32.768kHz** ±20ppm -40+85°C (standard)

MS1V-TK/M 32.768kHz ±100ppm -55+85°C

Option code X (eg MS1V-TK/X) denotes a custom spec.

- ◆ Our standard SM watch crystal.
- ◆ Available on T&R - 5k 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).