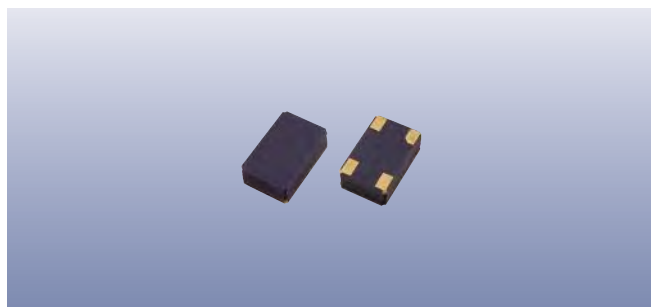
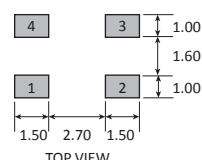


SOLDER PAD LAYOUT



PAD	CONNECTION
1	Not connected or Enable/Disable
2	Ground
3	Output
4	Supply

Features

- Suitable for Avionics, Down-hole, Geothermal etc
- Ultra-low current consumption <20μA
- Extreme temperature ranges up to 175°C
- High stability & low ageing under extremes
- High shock & vibration resistance

Enable / Disable Function

Input (pad 1)	Output (pad 3)
Open	Enabled
'1' level	Enabled
'0' level	High Impedance

Specifications

Parameters	Product MCSO2E	Option Codes
Frequency range: 32.768kHz 10.0 ~ 50.0kHz	■ □	
Supply voltage (V _{DD}): +3.3V (±5%) +2.5V (±5%)	□ □	V W
Frequency stability (max)*: ±100ppm over -55 to +125°C ±150ppm over -55 to +150°C ±300ppm over -55 to +175°C	□ □ □	C E D
Storage temperature range: -65 to +125°C	■	
Supply current: 20μA max (load 10pF)	■	
Driving ability: CMOS	■	
Load: 3pF min, 27pF max	■	
Logic levels: '0' level = +0.4V max '1' level = V _{DD} -0.5V min	■ ■	
Start up time: 5ms max	■	
Waveform symmetry: 40:60 max @ 50%V _{DD}	■	
Rise / fall times 25ns max @ 32.768kHz (load 15pF 20%~80%)	■	
Enable / disable function: None (pad 1 NC) Tristate* (control via pad 1)	■ □	E
Shock resistance: 10,000G, 0.3ms, ½ sine	■	
Vibration resistance: 40G rms 10.0 ~ 2,000Hz	■	
Soldering condition: 260°C, 10 sec max	■	

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

* Frequency stability is inclusive of calibration @ 25°C, operating temperature range, supply voltage change, load change and long term ageing (1000h @ T_{MAX}).

Ordering Information

Product name + option codes + frequency

eg: MCSO2EU/VDE 32.768kHz 3.3V ±300ppm -55 to +175°C Enable/disable

MCSO2EU/WE 32.768kHz 2.5V ±150ppm -55 to +150°C no E/D

Option code X (eg MCSO2EU/X) denotes a custom specification.

♦ Packed in trays (128pcs/tray), or T&R 250 ~ 1,000pcs / reel

♦ A 47nF ceramic capacitor must be connected between GND and V_{DD}