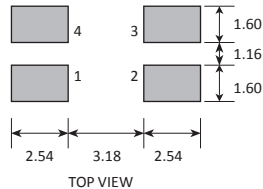


| PAD | CONNECTION |
|-----|---------------------------------|
| 1 | Not connected or Enable/Disable |
| 2 | Ground |
| 3 | Output |
| 4 | Supply |



Features

- Suitable for Avionics, Down-hole, Geothermal etc
- Extreme temperature ranges up to 210°C
- High stability & low ageing under extremes
- High shock & vibration resistance
- Low current consumption

Enable / Disable Function

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

Supply current

| Freq / Supply | 2.5V | 3.3V | 5.0V |
|---------------|-------|------|------|
| 32kHz | 300µA | 1mA | 2mA |
| <10MHz | 2mA | 4mA | 6mA |
| 10 ~ 20MHz | 3mA | 5mA | 7mA |
| >20 ~ 100MHz | 15mA | 20mA | 30mA |

Maximum values, no load.

Specifications

MCSO1E: 32.0kHz ~ 20.0MHz

MCSO1EH: 20.0 ~ 100MHz

| Parameters | Product | Option Codes |
|--|-------------|--------------|
| | MCSO1E | |
| Frequency range: 32.0kHz ~ 100MHz | ■ | |
| Supply voltage (V _{DD}): +5.0V (±5%) +3.3V (±5%) +2.5V (±5%) | ■ □ □ | V W |
| Frequency stability (max)*: ±300ppm over -55 to +175°C ±400ppm over -55 to +210°C | □ □ | D G |
| Storage temperature range: -55 to +125°C | ■ | |
| Supply current: | See table | |
| Driving ability: CMOS | ■ | |
| Load: 3pF min, 47pF 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: 7ns max ≤20MHz 3ns max >20MHz 150ns max@ 32.768kHz | ■ ■ ■ | |
| Enable / disable function: None (pad 1 NC) Tristate* (control via pad 1) * not available under 500kHz | ■ □ | 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 ageing (1 year).

Ordering Information

Product name + option codes + frequency

eg: **MCSO1E/DE 10.0MHz** 5V ±300ppm -55 to +175°C Enable / disable

For frequencies >20.0MHz add an 'H' to the product name

eg: **MCSO1EHW/G 32.0MHz** 2.5V ±400ppm -55 to +210°C no E/D

Option code X (eg MCSO1E/X) denotes a custom specification.

◆ Packed in trays (91pcs/tray), or T&R 250 ~ 1,000pcs / reel