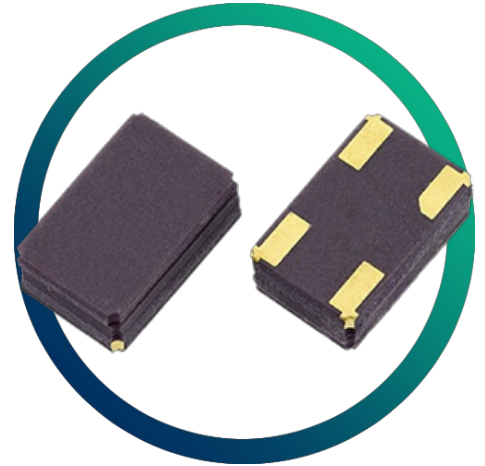


# MCSO6FW

## Miniature 2.5V Low Jitter Oscillator with Extended Temperature Range of -55+125°C



- Low jitter
- Military temperature range -55+125°C option
- Excellent shock & vibration resistance
- Enable / disable tristate option (>500kHz)
- Optional tinned pads (Ag/Cu/Sn)

### CONFIGURABLE OPTIONS

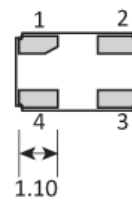
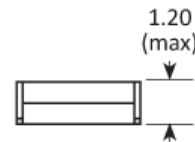
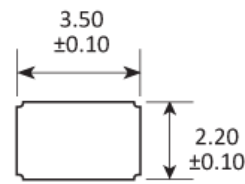
Parameter	Option Code
Frequency	
Frequency stability	
* see note below	
Any	
±100ppm	
±50ppm	T
Operating temperature range	
Any	
0 to +70°C	A
-40 to +85°C	B
-50 to +125°C	C
Enable / disable function	
Any	
None (pad 1 NC)	
Active* (control via pad 1)	E
* not available under 500kHz	
Terminations	
Any	
Gold plated pads	
Tinned pads Ag/Cu/Sn	T

\* Frequency stability is inclusive of calibration @ 25°C, operating temperature range, supply voltage change, load change and first year ageing

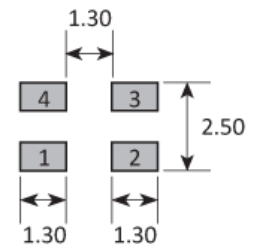
## SPECIFICATIONS

Frequency range	10.0kHz ~ 155MHz
Dimensions	3.5 x 2.2 x 1.2mm
Supply voltage ( $V_{DD}$ )	+2.5V ( $\pm 5\%$ )
Storage temperature range	-65 to +125°C
Supply current	300 $\mu$ A max (@32.768kHz) 2mA max ( $\leq 10$ MHz) 3mA max ( $> 10.0 \sim 20.0$ MHz) 25mA max ( $> 20.0$ MHz)
Driving ability	CMOS
Load	3pF min, 47pF max
Logic levels	'0' level = +0.4V max '1' level = $V_{DD} - 0.5$ V min
Start up time	5ms max
Waveform symmetry	40:60 max @ 50% $V_{DD}$
Jitter RMS (1 $\sigma$ )	< 2ps ( $\leq 20.0$ MHz) < 10ps ( $> 20.0$ MHz)
Rise / fall time	7ns max (15pF, 20~80% $V_{p-p}$ ) 150ns max @ 32.768kHz
Shock resistance	5,000g, 0.3ms, 1/2 sine
Vibration resistance	50g rms 10.0 ~ 2,000Hz
Soldering condition	260°C, 10 sec max

## PACKAGE DRAWING



### SOLDER PAD LAYOUT



TOP VIEW

PAD	CONNECTION
1	Enable/Disable
2	Ground
3	Output
4	Supply

Dimensions in mm

## ORDERING INFORMATION

To request a quotation for the MCSO6FW please use the configurable options form to choose the options you require and then submit your configured product to our team. Our expert advisers are always happy to help with your requirements and can be contacted on +44 1460 256 100 or at [sales@golledge.com](mailto:sales@golledge.com).

Following product selection you will be issued with a seven character Golledge part number. Your Golledge part number is the internationally accepted Golledge manufacturing part number (MPN) that should be used for all project documentation, including bills of materials (BoMs) and purchase orders.

If you have any queries regarding any of our documentation our dedicated sales team will be happy to help.

## ENABLE / DISABLE FUNCTION

Input (pad 1)	Output (pad 3)
Open	Enabled
'1' level	Enabled
'0' level	No clock

Reaction time < 1 $\mu$ s

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**HANDLING & STORAGE**

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Human Body Model (HBM) 1A (250V to &lt;500V)



Moisture Sensitivity Level (MSL): 1 (or not applicable)

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**CONSTRUCTION**

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Ceramic base and lid

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**COMPLIANCE**

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Lead-free (&lt; 0.1% by weight)

RoHS compliant with no exemptions. [See our declaration](#)REACH compliant. [See our statement](#)Free of conflict minerals. [See our declaration](#)Free of Halogens. [See our declaration](#)Free of Ozone-depleting substances. [See our declaration](#)