



# MCS06W

# 2.5V CMOS Oscillator with Extended -55+125°C Temperature Range

- Military temperature range -55+125°C option
- Excellent shock & vibration resistance
- Enable / disable tristate option
- Hermetically sealed
- Optional tinned pads (Ag/Cu/Zn)



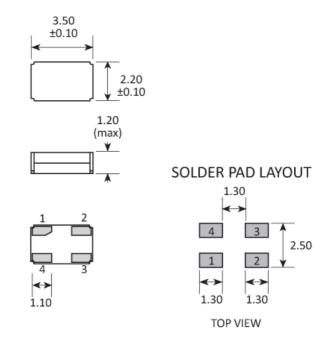
| CONFIGURABLE OPTIONS         |             |
|------------------------------|-------------|
| Parameter                    | Option Code |
| Frequency                    |             |
| Frequency stability          |             |
| * see note below             |             |
| Any             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



# **SPECIFICATIONS**

| Frequency range                   | 10.0kHz ~ 155MHz                         |
|-----------------------------------|--|
| Dimensions                        | 3.5 x 2.2 x 1.2mm                        |
| Supply voltage (V <sub>DD</sub> ) | +2.5V (±5%)                              |
| Storage temperature               | -65 to +125°C                            |
| range                             |  |
| 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 <sub>DD</sub>           |
| Rise / fall time                  | 7ns max (15pF, 20~80% V <sub>P-P</sub> ) |
|                                   | 150ns max @ 32.768kHz                    |
| Shock resistance                  | 5,000g, 0.3ms, ½ sine                    |
| Vibration resistance              | 50g rms 10.0 ~ 2,000Hz                   |
| Soldering condition               | 260°C, 10 sec max                        |
|                                   |  |

# **PACKAGE DRAWING**



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

Dimensions in mm

# **ORDERING INFORMATION**

To request a quotation for the MCSO6W 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 <a href="mailto:sales@golledge.com">sales@golledge.com</a>.

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 <1µs



#### **HANDLING & STORAGE**

#### **CONSTRUCTION**



Human Body Model (HBM) 1A (250V to <500V)

Ceramic base and lid



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

# **MATERIAL COMPOSITION**



Lead-free (< 0.1% by weight)



RoHS 2 compliant with no exemptions. See our

declaration



REACH compliant. See our statement



Au Ta Sn W Free of conflict minerals. See our declaration



Free of Halogens. See our declaration



Free of Ozone-depleting substances. See our

declaration



#### OTHER INFORMATION

#### **About Golledge**

We are the UK's leading supplier of frequency control products and are proud to serve the global electronics industry. Our philosophy is a focus firmly on your requirements by striving to meet and exceed your needs. We do this by ensuring the utmost quality and consistency in our products and services. If you have any queries about the Golledge service or any of our products please get in touch, we'd love to hear from you.

#### Come and visit

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Our customer feedback is testament to our quality; "Never had such good service as this from anyone in 35 years of being in the industry, this is impressive and has really helped us out of a corner to keep the design flowing" Andy (Senior Design Engineer), "As always your support is state of the art" Nicoleta (Material Management), "Legendary work - as usual it has to be said" John (Operations). To take advantage of our highly praised service get in touch with us today.

