

# MCSO2EUW

# Ultra Low Power 2.5V Oscillator - 55+175°C

- Ultra-low current consumption <20uA
- Extreme temperature ranges up to 175°C
- High stability & low ageing under extremes
- High shock & vibration resistance
- Optional tinned pads (Ag/Cu/Zn)



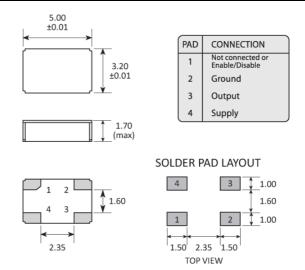
| CONFIGURABLE OPTIONS           |             |
|--------------------------------|-------------|
| Parameter                      | Option Code |
| Frequency                      |             |
| 32.768kHz                      |             |
| Frequency stability            |             |
| * see note below               |             |
| Any                            |             |
| ±100ppm max over -55 to +125°C | С           |
| ±150ppm max over -55 to +150°C | Е           |
| ±300ppm max over -55 to +175°C | D           |
| Enable / disable function      |             |
| Any                            |             |
| None (pad 1 NC)                |             |
| Active (control via pad 1)     | E           |
| Terminations                   |             |
| Any                            |             |
| Gold plated pads               |             |
| Tinned Ag/Cu/Zn                | Т           |



#### **SPECIFICATIONS**

| Frequency range                   | 32.768kHz<br>10.0 ~ 50.0kHz                                    |
|-----------------------------------|--|
| Dimensions                        | 5.0 x 3.2 x 1.7mm  |
| Supply voltage (V <sub>DD</sub> ) | +2.5V (±5%)  |
| Storage temperature range         | -65 to +125°C  |
| Supply current                    | 20μA max<br>(load 10pF)  |
| Driving ability                   | CMOS   |
| Load                              | 3pF min, 27pF max  |
| Logic levels                      | '0' level = +0.4V max<br>'1' level = V <sub>DD</sub> -0.5V min |
| Start up time                     | 5ms max  |
| Waveform symmetry                 | 40:60 max @ 50%V <sub>DD</sub>                                 |
| Rise / fall times                 | 25ns max @ 32.768kHz<br>(load 15pF 20%~80%)                    |
| Shock resistance                  | 10,000g, 0.3ms, ½ sine   |
| Vibration resistance              | 80g rms 10.0 ~ 2,000Hz   |
| Soldering condition               | 260°C, 10 sec max  |
|                                   |  |

# **PACKAGE DRAWING**



A 47nF ceramic capacitor must be connected between GND and VDD

Dimensions in mm

#### **ORDERING INFORMATION**

To request a quotation for the MCSO2EUW 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       |



# **HANDLING & STORAGE**

#### **CONSTRUCTION**



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

Ceramic base and lid



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

# **COMPLIANCE**



Lead-free (< 0.1% by weight)



RoHS compliant with no exemptions. <u>See our</u>

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