

F Series 32.768KHz Military Oscillators

XO – Ultra Low Power

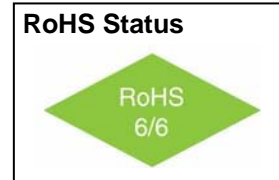
4x2.5mm SMD, HCMOS



Widely used for Telecommunications, Aerospace, Defense and Military Industries.

Features

- > HCMOS 32.768KHz
- > Supply Voltage 1.3Vdc ~5.5Vdc
- > Tight symmetry
- > Low jitter
- > Low power consumption



Applications

- > Portable Communications
- > Test & Measurement
- > Gigabit Ethernet

Electrical Specifications

| Parameter | Symbol | Condition | Min | Typ | Max | Unit | Note |
|-----------------------|-----------------|---|------------|----------|-----------|---------|--------------------------------------|
| Frequency Stability | $\Delta F/F$ | Over all conditions of Operating Temperature; Supply Voltage; 10 Years Aging; shock & vibration | ± 10 | ± 50 | ± 100 | ppm | |
| Operating Temperature | T | | -55 | | +125° | °C | |
| Output | | | HCMOS 15pF | | | | |
| Supply Voltage | V_{DD} | | 1.30 | | 5.50 | Vdc | |
| Supply Current | I_{CC} MAX | | | | 1.5 | μA | Max Current across entire temp range |
| Standby Current | I_{ST} | | | | 250 | nA | |

Environmental and Mechanical

| Parameter | Specification |
|----------------------|---|
| Mechanical Shock | Per MIL-STD-202, Method 213, Condition E |
| Thermal Shock | Per MIL-STD-883, Method 1011, Condition A |
| Vibration | Per MIL-STD-883, Method 2007, Condition A |
| Soldering Conditions | 260°C for 10s max |
| Hermetic Seal | Per MIL-STD-883, Method 1014, Condition A |

MMDC-Tech Science Inc. www.mmdc-tech.net

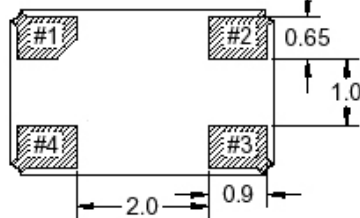
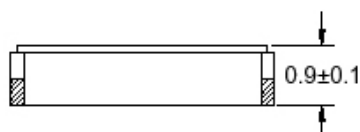
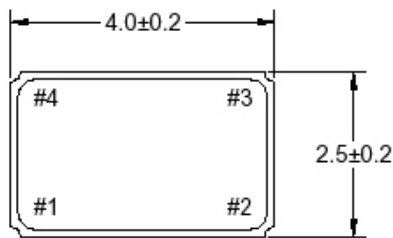
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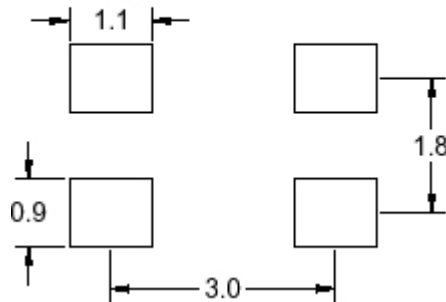


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|---------------------|--------|-------------------------------|-----------------------|-----|-------|------|------|
| Duty Cycle | | | 45 | 50 | 55 | % | |
| Rise / Fall Time | Tr/Tf | 10% to 90% of V _{DD} | | | 200 | ns | |
| Logic "1" Level | Voh | | V _{DD} -0.4V | | | V | |
| Logic "0" Level | Vol | | | | 0.4 | V | |
| Start up time | | | | | 3 | S | |
| Storage Temperature | Ts | | -55 | | +125° | °C | |



Recommended Solder Pad Layout



| Pin # | Connection |
|-------|-----------------|
| 1 | N/C |
| 2 | GND |
| 3 | Output |
| 4 | V _{DD} |

How to Order

