

Temperature Compensated Crystal Oscillator YSO510TP TCXO

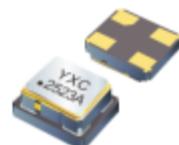


Applications

- Networking
- Industrial

Features

- Frequency Stability as Tight as ± 1.0 ppm Over -40°C to 85°C
- Package Size : 2.0*1.6, 2.5*2.0, 3.2*2.5, 5.0*3.2, 7.0*5.0mm
- Ultra Small SMD Seam Sealed Crystal Oscillator



Specifications (规格参数)

| Item/Type | Clipped Sine Wave or CMOS | | | | |
|--|--|--|------------|-------------|-------------|
| Package Size 封装尺寸 | 2.0 x 1.6 | 2.5 x 2.0 | 3.2 x 2.5 | 5.0 x 3.2 | 7.0 x 5.0 |
| Frequency Range 额定频率范围 | 26 ~ 52MHz | 13 ~ 52MHz | 13 ~ 52MHz | 6.4 ~ 52MHz | 6.4 ~ 52MHz |
| Supply Voltage 电源电压 | 1.8V, 2.5V, 3V, 3.3V | | | | |
| Operating Temperature Range 工作温度 | -30 ~ +85°C, or specify | | | | |
| Storage Temperature Range 储存温度 | -40°C to +85°C | | | | |
| Output Type 输出方式 | Clipped Sine wave or CMOS | | | | |
| Current Consumption (max.) 消耗电流 | Clipped Sine Wave: 3.5mA (Max) CMOS: 1.8V/2.5V:10mA (Max); 3V/3.3V:13mA (Max) | | | | |
| Duty Cycle 占空比 | 40~60% | | | | |
| Output Voltage Level (peak to peak) 峰峰值 | Clipped Sine Wave: 0.8 Vp-p Min. CMOS: VOH = 80%Vdd(Min.) VOL = 20%Vdd(Max.) | | | | |
| Start-up Time 启动时间 | 2.0msec (Typ.), 5.0msec (Max.) @ +25 ± 2°C | | | | |
| Initial Calibration Tolerance 初始校准公差 | ± 2.0 ppm (Max.) at +25°C $\pm 2^\circ$ C (at the shipment) | | | | |
| Output Load 输出负载 | Clipped Sine Wave: 10K Ω // 10pF $\pm 10\%$ CMOS: 15pF | | | | |
| Frequency Stability 频率偏差 | vs Aging at Ta = +25°C | ± 1.0 ppm / year (Max.) | | | |
| | vs Voltage Change | ± 0.2 ppm (Max.), for a $\pm 5\%$ input voltage change | | | |
| | vs Load Change | ± 0.2 ppm (Max.), for a $\pm 10\%$ load condition change | | | |
| | vs Reflow | ± 2.5 ppm (Max.) | | | |
| | vs Temperature Change | 5ppm / ± 2.5 ppm | | | |
| Phase Noise@10MHZ 相位噪声 | -150dBc / Hz @1KHz (Min.) | | | | |

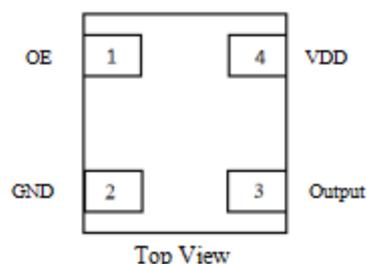
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Pin Description-CMOS (脚位说明-CMOS)

| Pin | #1 | #2 | #3 | #4 |
|----------|---------------|--------|--------|----------------|
| Function | Output Enable | Ground | Output | Supply Voltage |

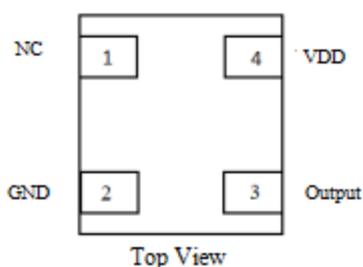
Pin Assignments-CMOS



Pin Description-Clipped sine wave (脚位说明-Clipped sine wave)

| Pin | #1 | #2 | #3 | #4 |
|----------|------------|--------|--------|----------------|
| Function | No Connect | Ground | Output | Supply Voltage |

Pin Assignments-Clipped sine wave



Notes:

1. Please keep the NC pin floating during use. Do not connect it to any network (power, ground, or signal).
2. The provided pinout is for reference purposes only. The definitive material specification document must be obtained by contacting a sales representative.

Dimensions and Recommended Land Pattern (外观尺寸及推荐焊盘)

| Dimensions (Unit: mm) | Recommended Land Pattern (Unit: mm) |
|--|--------------------------------------|
| <p>2.0*1.6mm</p> <p>Top View</p> <p>Bottom View</p> <p>Side View</p> | <p>Recommended soldering Pattern</p> |

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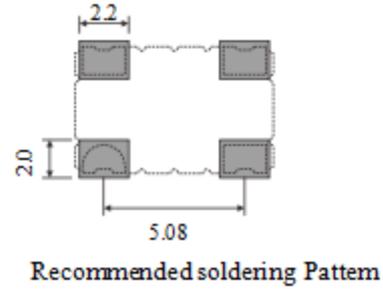
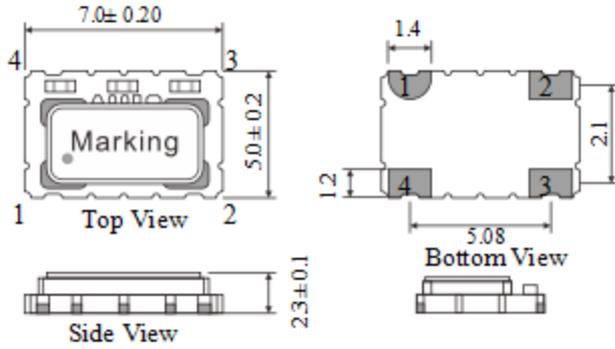


| | |
|--|--------------------------------------|
| <p>2. 5*2. 0mm</p> <p>Top View</p> <p>Bottom View</p> <p>Side View</p> | <p>Recommended soldering Pattern</p> |
| <p>3. 2*2. 5mm</p> <p>Top View</p> <p>Bottom View</p> <p>Side View</p> | <p>Recommended soldering Pattern</p> |
| <p>5. 0*3. 2mm</p> <p>Top View</p> <p>Bottom View</p> <p>Side View</p> | <p>Recommended soldering Pattern</p> |

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7.0*5.0mm

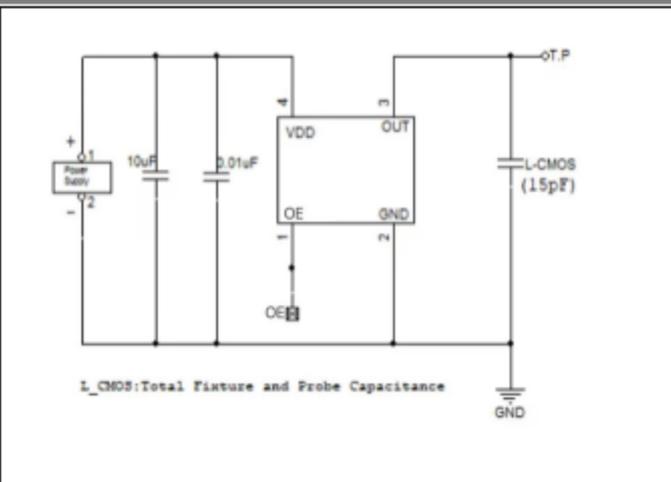
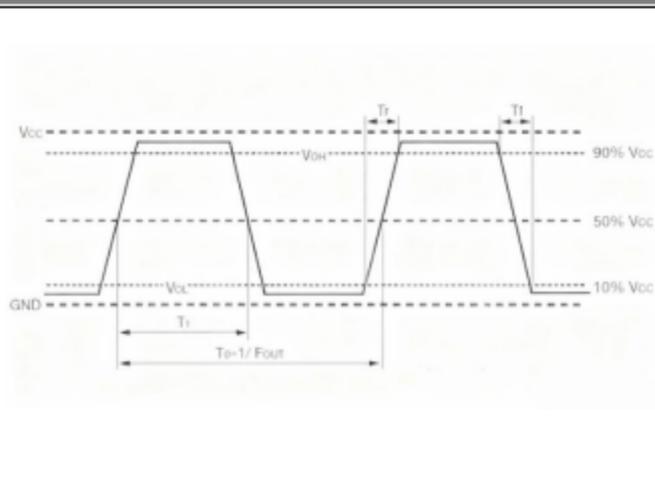


Notes:

1. A capacitor of value 0.01uF-0.1uF or higher between VDD and GND is required.
2. The dimensions are for reference purposes only. The definitive material specification document must be obtained by contacting a sales representative.

Output Waveform and Test Circuit (输出波形和测试电路)

CMOS



Clipped Sine Wave

