

# Temperature Compensated Voltage Control

## YSV350TP VC-TCXO

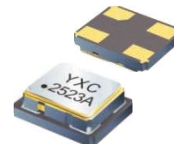


### Applications

- Mobile Communications

### Features

- Wide Frequency Range: 6.4 ~ 60.0 MHz
- Frequency Stability as Tight as  $\pm 1.0\text{ppm}$  Over  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$
- Frequency Stability as Tight as  $\pm 0.5\text{ppm}$  Over  $0^{\circ}\text{C}$  to  $50^{\circ}\text{C}$



## Specifications (规格参数)

Item / Type		CMOS			Clipped Sine Wave		
Frequency Range 额定频率范围		6.4MHz ~ 60MHz			10MHz ~ 52MHz		
Operating Temperature Range 工作温度		-30~+85°C, or specify					
Storage Temperature Range 储存温度		-55°C to +125°C					
Frequency Tolerance (at 25°C) 频率偏差		$\pm 0.5\text{ppm}$ , $\pm 1.0\text{ppm}$ , $\pm 1.5\text{ppm}$ , $\pm 2.0\text{ppm}$ , $\pm 2.5\text{ppm}$ , $\pm 3.0\text{ppm}$					
Supply Voltage 电源电压		1.8V, 2.5V, 2.8V, 3.0V, 3.3V					
Initial Calibration Tolerance 初始校准公差		Models with mechanical trimmer : $< \pm 1.0\text{ppm}$ . $+25^{\circ}\text{C} \pm 2^{\circ}\text{C}$					
Output Load 输出负载		15 pF			10 K $\Omega$ // 10 pF		
Duty Cycle 占空比		Standard: 50 % $\pm$ 10 % ; Option: 50 % $\pm$ 5 %					
Electrical Frequency Tuning (EFC) by External Control Voltage 电频调谐	Control Voltage Center	0.9 V $\pm$ 0.6 V(1.8 V); 1.4 V $\pm$ 1.0 V(2.5V); 1.5 V $\pm$ 1.0 V(3.0V / 3.3V)					
	Frequency Deviation Range	$\pm 5.0\text{ppm}$ (min.)					
	Slope Polarity (Transfer Function)	Positive slope. Positive voltage for positive frequency shift					
		Input Impedance : 1.0M $\Omega$ (min.)	Modulation Bandwidth : 20KHz (min.)	Linearity : $\pm 10\%$ (max.)			
Frequency Stability 频率偏差	vs Aging at Ta = +25°C	$\pm 1.0\text{ppm}$ / year (max.)					
	vs Voltage Change	$\pm 0.3\text{ppm}$ (max.), for a $\pm 5\%$ input voltage change					
	vs Load Change	$\pm 0.3\text{ppm}$ (max.), for a $\pm 10\%$ load condition change					
	vs Reflow (SMD type)	$\pm 1.0\text{ppm}$ (max.), 1 reflow and measured 24 hours afterwards					
Phase Noise [ dBc / Hz(typ. )] 相位噪声	Offset	10 Hz	100 Hz	1 KHz	10 KHz	100 KHz	Remarks
	10.0MHz	-96 dBc / Hz	-122 dBc / Hz	-138 dBc / Hz	-145 dBc / Hz	-150 dBc / Hz	Type: CMOS
	13.0MHz	-80 dBc / Hz	-115 dBc / Hz	-135 dBc / Hz	-148 dBc / Hz	-148 dBc / Hz	Type: Clipped Sine Wave

# Temperature Compensated Voltage Control

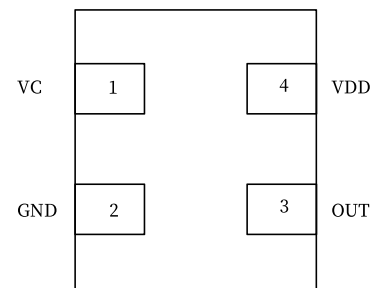
## YSV350TP VC-TCXO



### Pin Dimension (脚位尺寸)

Pin	#1	#2	#3	#4
FUNCTION	Voltage Control	Ground	Output	Supply Voltage

### Pin Assignments



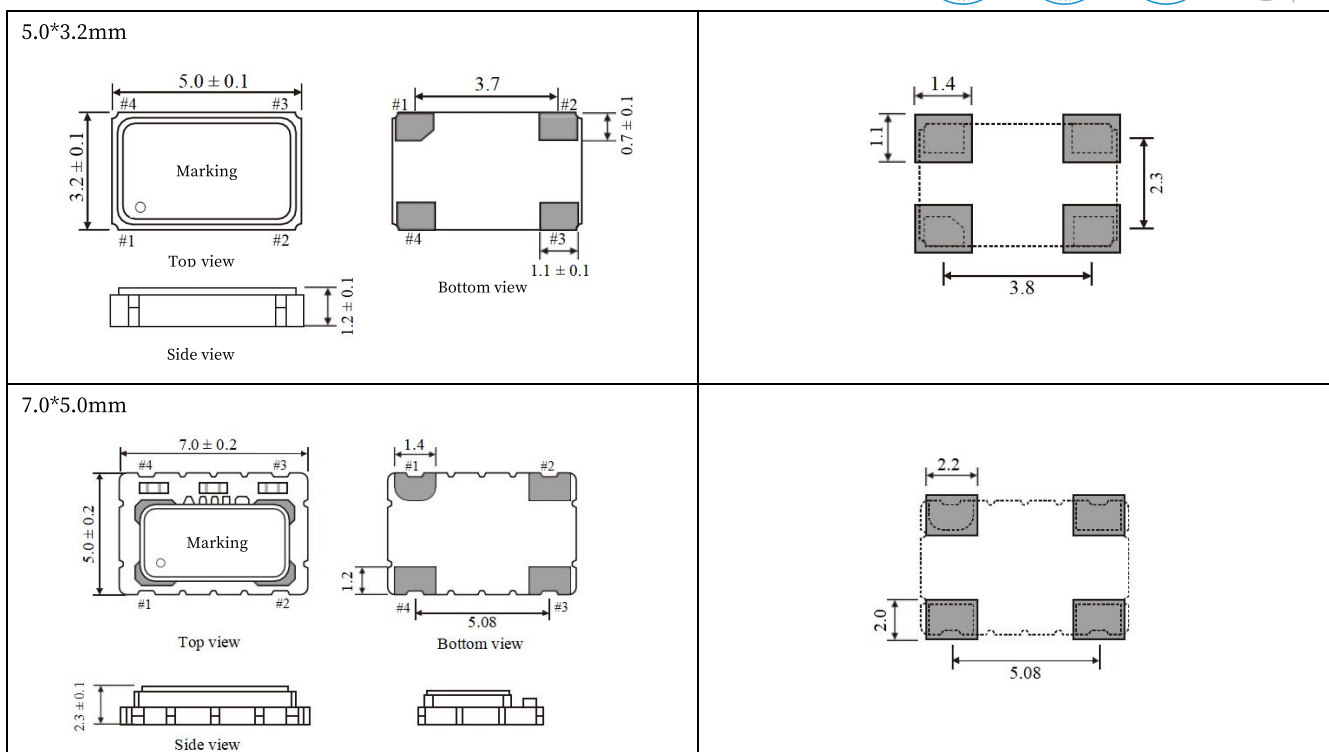
Top View

### 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>Pin5, Pin6: NC</p>	
<p>2.5*2.0mm</p>	
<p>3.2*2.5mm</p>	

# Temperature Compensated Voltage Control

## YSV350TP VC-TCXO



### Test Circuit (测试电路)

