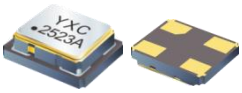
Temperature Compensated Voltage Control

YSV350TP VCTCXO



Applications

- Mobile Communications

Features

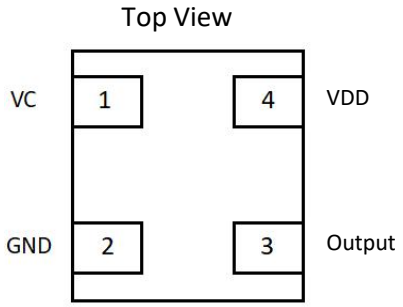
- Wide frequency range: 6.4 MHz ~ 60.0 MHz
- Frequency stability as tight as ± 0.5 ppm over 0°C to 50°C
- Frequency stability as tight as ± 1.0 ppm over -40°C to 85°C

Specifications

Item/Type			CMOS			
Frequency Range			6.4MHz to 60MHz, or specify			
Operating Temperature Range			-40~+85°C, or specify			
Storage Temperature Range			-40°C to +85°C or -55°C to +125°C (package dependent)			
Frequency Tolerance(at 25°C)			± 0.5 ppm , ±1.0 ppm , ±1.5 ppm, ± 2.0 ppm, ± 2.5 ppm, ± 3.0 ppm			
Supply Voltage			1.8V	2.5V	3.0V	3.3V
Current Consumption. (max.)(Over operating temperature range .)	Package	(3.2 x 2.5 x 1.0 mm)	6 mA	6 mA	6 mA	6 mA
		(5.0 x 3.2 x 1.3 mm)	6 mA	6 mA	6 mA	6 mA
		(7.0 x 5.0 x 2.3 mm)	10 mA	10 mA	13 mA	13 mA
Initial Calibration Tolerance			Models with mechanical trimmer : < ± 1.0 ppm. +25°C ± 2°C. Models without mechanical trimmer : < ± 2.0 ppm at +25°C ± 2°C.			
Output Load			15 pF			
Duty Cycle			Standard: 50 % ± 10 % ; Option: 50 % ± 5 %			
Electrical Frequency Tuning (EFC) by external Control Voltage	Control Voltage Center		0.9 V ± 0.6 V (1.8 V) ; 1.4 V ± 1.0 V (2.5V) ; 1.5 V ± 1.0 V (3.0V / 3.3V)			
	Frequency Deviation Range		± 5.0 ppm (min.)			
	Slope Polarity (Transfer Function)		Positive slope. Positive voltage for positive frequency shift.			
			Input Impedance : 1.0M Ω (min.)	Modulation Bandwidth : 20 KHz (min.)	Linearity : ± 10 % (max.)	
Frequency Stability	vs Aging at Ta = +25°C		± 1.0 ppm / year (max.)			
	vs Voltage Change		± 0.3 ppm (max.) , for a ±5% input voltage change .			
	vs Load Change		± 0.3 ppm (max.) , for a ±10% load condition change .			
	vs Reflow (SMD type)		± 1.0 ppm (max.) , 1 reflow and measured 24 hours afterwards .			
Phase Noise [dBc / Hz (typ.)]	Offset	10 Hz	100 Hz	1 KHz	10 KHz	100 KHz
		-96 dBc / Hz	-122 dBc / Hz	-138 dBc / Hz	-145 dBc / Hz	-150 dBc / Hz

Pin Dimension

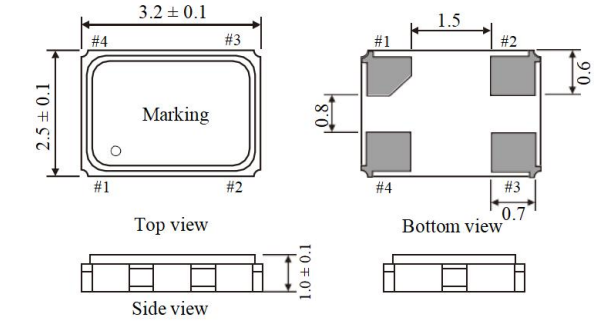
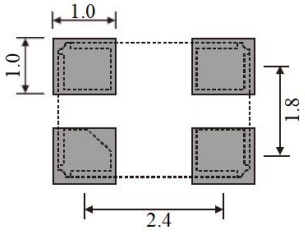
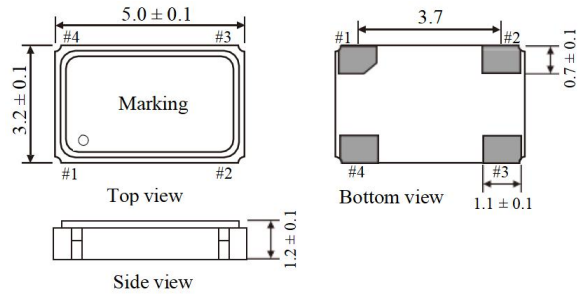
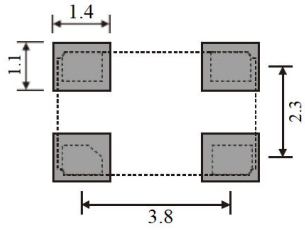
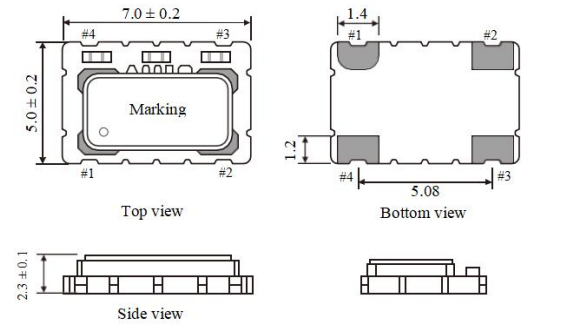
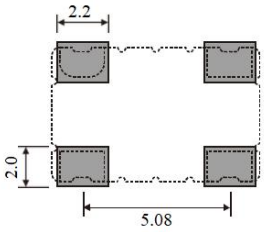
Pin	#1	#2	#3	#4
FUNCTION	Voltage Control	Ground	Output	Supply Voltage



Temperature Compensated Voltage Control

YSV350TP VCTCXO

Dimensions and Recommended land pattern

Package Size – Dimensions (Unit: mm)	Recommended Land Pattern (Unit: mm)
3.2*2.5mm 	
5.0*3.2mm 	
7.0*5.0mm 	

Test Circuit

CMOS