

Programmable Temperature Compensated YSV531PT VCTCXO

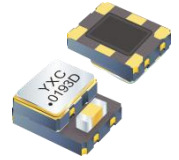


Applications

- networking
- industrial

Features

- An integrated phase jitter performance of 1.0 pS RMS Min.
- Low jitter design with new developed IC
- Package Size: 3.2*2.5mm, 7.0*5.0mm



Specifications

Output Type	CMOS	
Frequency Range	10MHz to 250MHz	
Supply Voltage VDD	2.5V, 3.3V	
Operating Temperature Range	-40~+85°C, or specify	
Storage Temperature Range	-55~+150°C	
Output Load	15 pF	
Rise Time/Fall Time (Tr / Tf : 10% ↔ 90% waveform)	1.5 nsec. (typ.) , 3.0 nsec. (max.)	
Duty Cycle	45~55%	
Start-up Time	5.0 msec. (max.)	
RMS Jitter [12 kHz ~ 20 MHz]	1.5 psec (typ.)	
Current Consumption (max.) (VDD = + 2.5V)	50 MHz : 34 mA	
	125 MHz : 38 mA	
	200 MHz : 40 mA	
Current Consumption (max.) (VDD = + 3.3V)	50 MHz : 36 mA	
	125 MHz : 40 mA	
	200 MHz : 44 mA	
Current with Output Disabled	18 mA (Typ.)	
Rise Time / Fall Time	1.5 nsec. (typ.) , 3.0 nsec. (max.) Tr / Tf : 10% ↔ 90% waveform	
Initial Calibration Tolerance	±2.0 ppm (max.) at +25°C±2°C (at the shipment)	
Frequency Stability	Temperature (ref to +25°C)	± 2.5 ppm over -30°C to +85°C (default)
		± 1.0 ppm over -40°C to +85°C (available)
	Aging at Ta = +25°C	± 2.0 ppm max, first year at 25°C
	Voltage Change	± 0.2 ppm max, for a ±5% input voltage change.
	Load Change	± 0.2 ppm max, for a ±10% load condition change.
Reflow	± 1.0 ppm max, 1 reflow and measured 24 hours afterwards.	

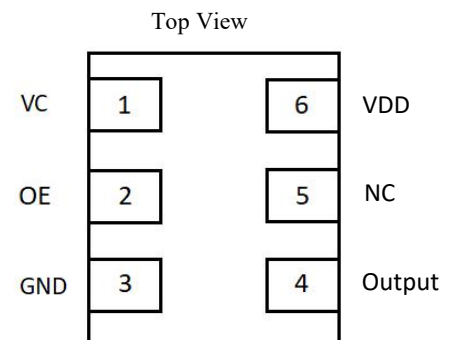
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Control Voltage Function on Pad 1	
Control Voltage Center and Range	+1.5V ± 1.0V for both VDD = 2.5V and 3.3V
Frequency Pulling Range	± 8 ppm (min.)
Linearity	± 1 % (typ.) ± 10% (max.)
Transfer Function	Positive Transfer
Absolute Voltage	4.0 V (max.)
Input Impedance	770 K Ω (typ.)
Output Enable Function on pad 2	
OE Control on Pad 2	70% of VDD (min.) to enable output. (Open connection prohibit.)
	30% of VDD (max.) to disable output.
Output Enable Time / Disable Time	200 nsec. (max.) / 50 nsec. (max.)

Pin Dimension

Pin	#1	#2	#3
FUNCTION	Voltage Control	Out Enable	Ground
Pin	#4	#5	#6
FUNCTION	Output	No Connection	Supply Voltage

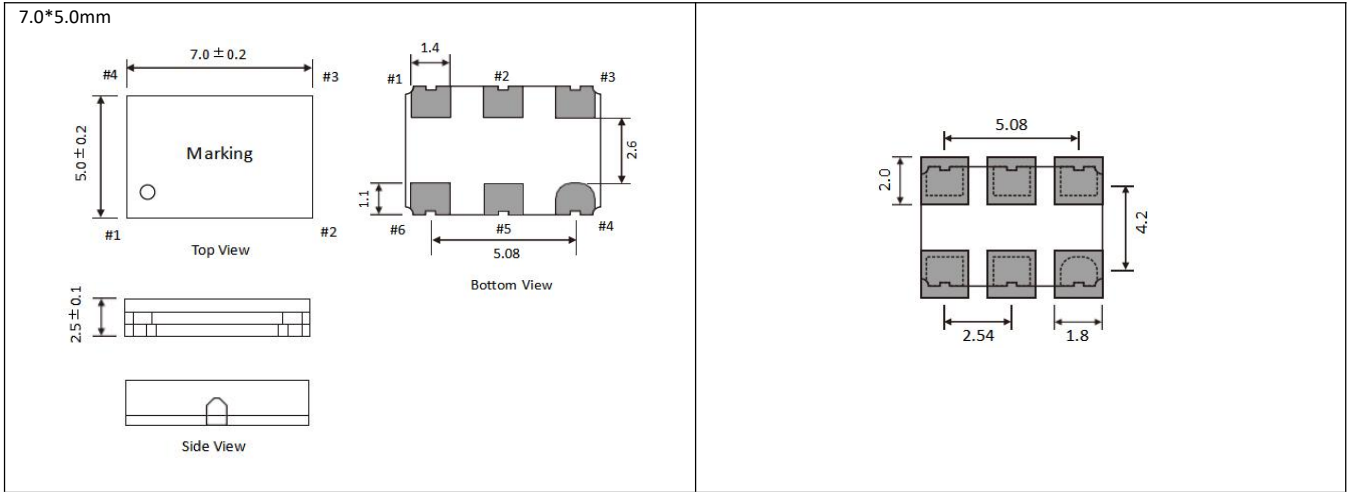


Pin Assignments

Dimensions and Recommended land pattern

Package Size – Dimensions (Unit: mm)	Recommended Land Pattern (Unit: mm)
<p>3.2*2.5mm</p>	

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Test Circuit

