

# SX5CV HCMOS SURFACE MOUNT VOLTAGE CONTROLLED CRYSTAL CLOCK OSCILLATOR

## FEATURES

- Ultra-miniature package
- Tri-state functions
- Many options available
- Applications : Set-top boxes, Audio-video applications, Fibre channel, ...

5.0 x 3.2 x 1.3 mm



Item	Specification			
Frequency Range	1.0 MHz ~ 54.0 MHz			
Output Logic	CMOS			
Overall Frequency Stability *	± 25 ppm ~ ± 100 ppm (see options)			
Operating Temperature Range	0 ~ +70 °C commercial application (see options) -40 ~ +85 °C industrial application (see options)			
Supply Voltage Vdd	+1.8 V ±5%	+2.5 V ±5%	+3.3 V ±5%	+5.0 V ±5%
Control Voltage Center	+0.9 V	+1.25 V	+1.65 V	+2.5 V
Control Voltage Range	0.0 V to 1.8V	0.25 V to 2.25 V	0.3V to 3.0V	0.5V to 4.5V
Supply Current Idd	10 ~ 45 mA (Frequency dependent)			
Output Level	VOH ≥ 0.9 Vdd		VOL ≤ 0.1 Vdd	
Output Load	15pF			
Symmetry	45 / 55%			
Rise Time / Fall Time Fr/Ff	10 ns max (1.0 MHz ~9.99 MHz) 6 ns (10.0 Mhz ~54 MHz)			
Start-up Time	10 ms max.			
RMS Jitter (12 kHz to 20 MHz band)	1 ps max.			
Phase Noise	-130 dBc/Hz max. at 1 kHz offset			
Tri-state function (only for 6-pad version)	pin #2 = high or open pin #2 = low		pin#4 ==> oscillation pin#4 ==> high impedance	
Frequency Pulling Range	±50 ppm min.; ±100 ppm min.; ±150 ppm min.; ±200 ppm min. (See options)			
Linearity	6% typical; 10% max.			
Slope Polarity	Positive (Increasing control voltage always increases output frequency)			
Modulation Bandwidth	10 kHz min (-3 dB)			
Input Impedance	1 MΩ min.			
Packing Unit	1000 pcs / reel			
Soldering Condition	260 °C , 10 sec x2 max			
	<b>Customer specifications on request</b>			

(\*) Includes initial tolerance @+25°C, stability over operating temperature, stability vs. load change, stability vs. supply change and one year aging

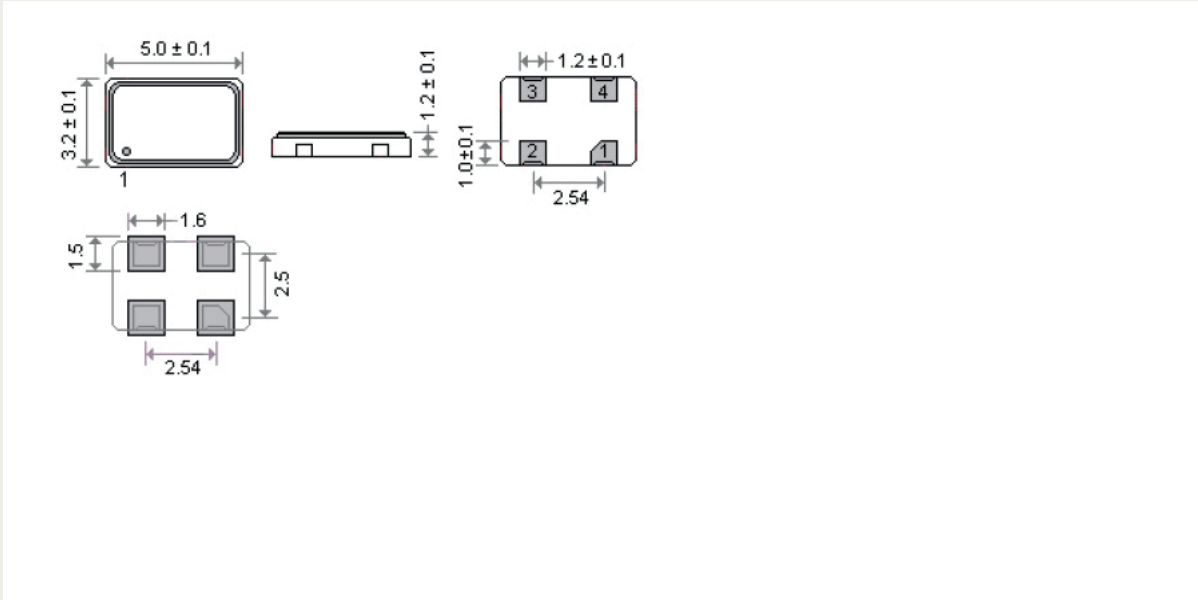
## OPTIONS & ORDERING INFORMATION

### SX5CV

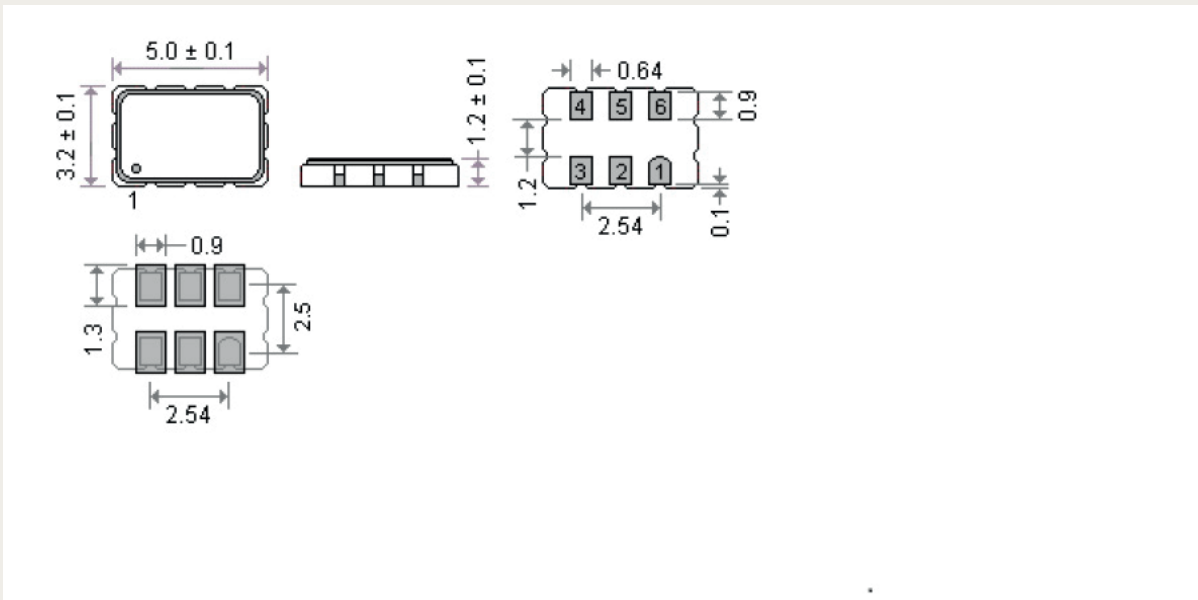
Supply Voltage	Operating Temp. *	Overall Stability *	Tri-state Function	Package type	Pulling *	Frequency in MHz
<b>18</b> = +1.8 V	<b>D</b> = -10° / +60°C	<b>25</b> = ±25 ppm	<b>E2</b> = Tri-state at pin #2	<b>4P</b> = 4-pad version	<b>50</b> = ±50 ppm min.	Please specify the frequency in MHz
<b>25</b> = +2.5 V	<b>E</b> = 0° / +70°C	<b>30</b> = ±30 ppm	<b>F</b> = No Tri-state	<b>6P</b> = 6-pad version	<b>100</b> = ±100 ppm min.	
<b>33</b> = +3.3 V	<b>F</b> = -20° / +70°C	<b>50</b> = ±50 ppm			<b>150</b> = ±150 ppm min.	
<b>50</b> = +5.0 V	<b>G</b> = -30° / +75°C	<b>100</b> = ±100 ppm			<b>200</b> = ±200 ppm min.	
	<b>H</b> = -30° / +85°C					
	<b>K</b> = -40° / +85°C					

(\*) Note : Not all combinations are possible, please consult us.

## OUTLINE DIMENSIONS



Pin Connections #1 : Control Voltage #2 : GND #3: Output #4 : Vdd



Pin Connections #1 : Control Voltage #2 : Tri-state #3: GND #4 : Output #5 : NC #6 : Vdd