

# SX2CV HCMOS SURFACE MOUNT VOLTAGE CONTROLLED CRYSTAL CLOCK OSCILLATOR

## FEATURES

- Ultra-miniature package
- High shock and vibrational resistivity
- Low current consumption
- Applications: Telecommunications, Portable electronics, ...

2.5 x 2.0 x 0.9 mm



Item	Specification
Frequency Range	1.0 MHz ~ 30.0 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	+1.8V ±5%                      +2.8V ±5%                      +3.3V ±5%
Supply Current Idd	3 mA max.                      5 mA max.                      8 mA max.
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 ~30 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
Frequency Pulling Range	±80 ppm min. at Vcon = 0.9V ±0.9V ( Vdd = +1.8V ) ±90 ppm min. at Vcon = 1.4V ±1.4V ( Vdd = +2.8V ) ±90 ppm min. at Vcon = 1.65V ±1.65V ( Vdd = +3.3V )
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	3000 pcs / reel
Soldering Condition	260 °C , 10 sec x2 max
	<b>Customer specifications on request</b>

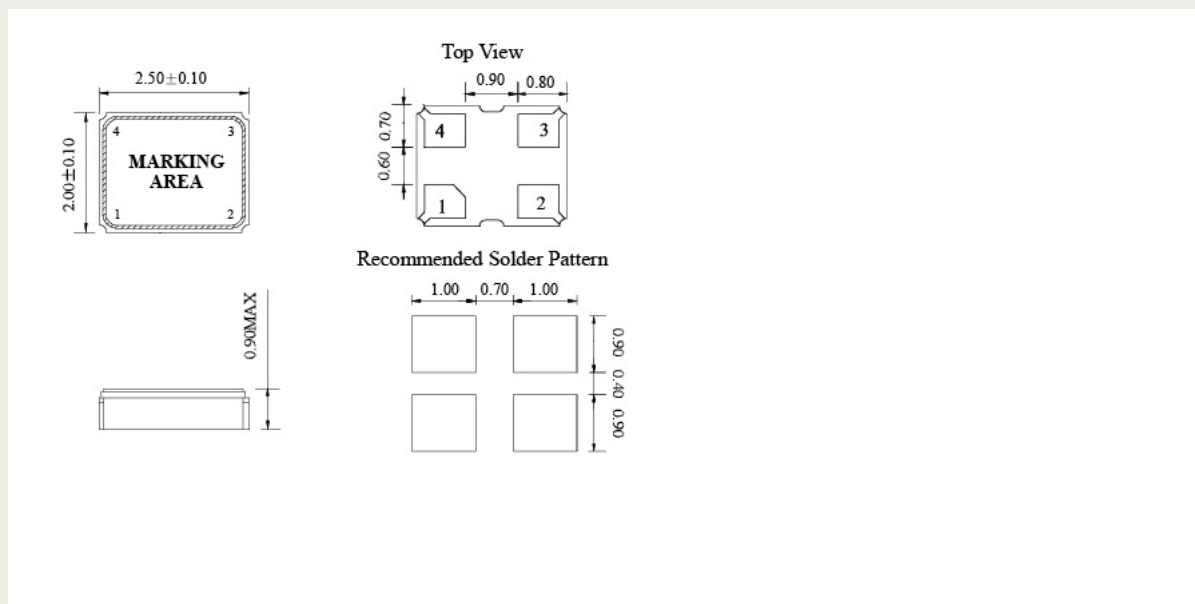
(\*) Includes initial tolerance @+25°C, stability over operating temperature, stability vs. load change, stability vs. supply change and one year aging

## OPTIONS & ORDERING INFORMATION

SX2CV	.....	.....	.....	.....	.....	..... MHz
Supply Voltage	Operating Temp. *	Overall Stability *	Tri-state Function	Package type	Pulling *	Frequency in MHz
18 = +1.8 V	D = -10° / +60°C	25 = ±25 ppm	F = No Tri-state	4P = 4-pad version	80 = ±80 ppm min.	Please specify the
28 = +2.8 V	E = 0° / +70°C	30 = ±30 ppm			90 = ±90 ppm min.	frequency in MHz
33 = +3.3 V	F = -20° / +70°C	50 = ±50 ppm				
	G = -30° / +75°C	100 = ±100 ppm				
	H = -30° / +85°C					
	K = -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