

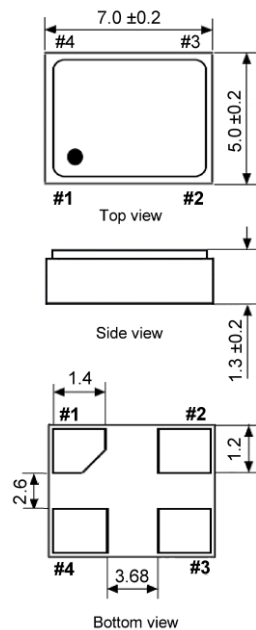


# Clock Oscillator SMD-version

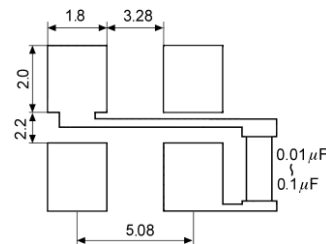
+1.2 / +1.8 / +2.5 / +3.3 V

part no.	12.xxxxx					
model	KXO-V97					
frequency range	0.5 ~ 39.999 MHz	40.0 ~ 59.999 MHz	60.0 ~ 69.999 MHz	70.0 ~ 79.999 MHz	80.0 ~ 160.0 MHz	
frequency range	160.0 ~ 200.0 MHz (for +2.5 /+3.3 V)					
frequency stability at -20° ~ +70°C; -40° ~ +85°C -40° ~ +105°C; -40° ~ +125°C	±25 ppm, ±50 ppm ±30 ppm; ±50 ppm; ±100 ppm					
operating temperature	standard -20° ~ +70°C available -40° ~ +85°C (=KXO-V97T); -40° ~ +105°C (=KXO-V97E); -40° ~ +125°C (=KXO-V97F)					
storage temperature	-55° ~ +125°C					
supply voltage range	+1.2 V ~ +3.3 V					
supply voltage V <sub>DD</sub>	standard + 3.3 V DC ± 10 % available +1.2 V DC ±5 %; +1.8 V DC ±5 %; +2.5 V DC ±5 %					
supply current max.		+1.2 V		+1.8 V	+2.5 V	+3.3 V
	0.75 ~ 2.999 MHz	2.2 mA	1.0 ~ 39.999 MHz	4 mA	6 mA	10 mA
	3.0 ~ 5.999 MHz	2.4 mA	40.0 ~ 59.999 MHz	6 mA	8 mA	15 mA
	6.0 ~ 11.999 MHz	2.5 mA	60.0 ~ 69.999 MHz	10 mA	12 mA	20 mA
	12.0 ~ 23.999 MHz	2.7 mA	70.0 ~ 79.999 MHz	25 mA	30 mA	40 mA
	24.0 ~ 48 MHz	3.0 mA	80.0 ~ 160.0 MHz	30 mA	40 mA	40 mA
	n.a.	n.a.	160.0 ~ 200.0 MHz	n.a.	65 mA	80 mA
symmetry	45 % ~ 55 % at 50 % V <sub>DD</sub> level					
rise & fall time max.	5 ns					
"O" level max.; "1" level min.	VOL: 10 % V <sub>DD</sub> ; VOH: 90 % V <sub>DD</sub>					
tri-state control voltage (Pin#1)	VIH: V <sub>DD</sub> x 0.7 min.; VIL: V <sub>DD</sub> x 0.3 max.					
output load	1.0 ~ 75.0 MHz 30 pF, 15 pF 75.1 ~ 160.0 MHz 15 pF					
start up time max.	10 ms					
disable/enable delay time max	50 µs / 4ms					
standby current max.	50 µA (Pin #1 = VIL)					
jitter max.	deterministic jitter	5 ps	norm 1-sigma	7 ps		
	random jitter	7 ps	peak to peak	40 ps		
contents of reel	1000 pcs.					

### Dimensions (mm):



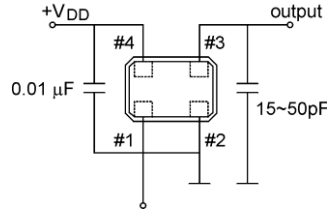
### Suggested soldering pad:



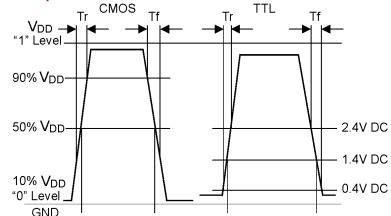
PIN	Connection
1	"L" (0V) "H" or OPEN
2	GND
3	Z OUTPUT
4	V <sub>DD</sub>

Z: high impedance

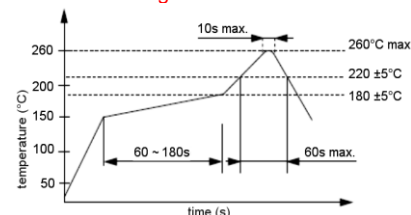
### Test circuit:



### Output waveform:



### Reflow soldering condition:



### Tape specification:

