

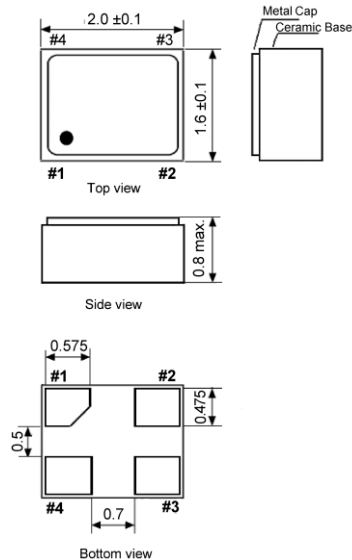


# Clock Oscillator SMD-version

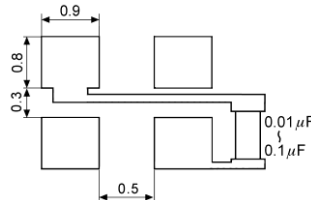
+1.8 / +2.5 / +2.8 / +3.0 / +3.3 V

part no.	12.xxxxx			
model	KXO-V94			
frequency range	1.0 ~ 160.0 MHz			
frequency stability at -20° ~ +70°C; -40° ~ +85°C -40° ~ +105°C; -40° ~ +125°C	±25 ppm, ±50 ppm ±30 ppm; ±50 ppm			
operating temperature range	standard -20° ~ +70°C available -40° ~ +85°C (=KXO-V94T); -40° ~ +105°C (=KXO-V94E); -40° ~ +125°C (=KXO-V94F)			
storage temperature range	-55° ~ +125°C			
supply voltage range	-0.3 V ~ +4.0 V			
supply voltage V <sub>DD</sub>	+1.8 V DC ±5 %, +2.5 V DC ±5 %, +2.8 V DC ±5 %, +3.0 V DC ±5 % or +3.3 V DC ±5 %			
supply current max.		+1.8 V	+2.5 V / +2.8 V	+3.0 V / +3.3 V
	1.0 ~ 19.9 MHz	5.0 mA	7.0 mA	7.0 mA
	20.0 ~ 39.9 MHz	7.0 mA	9.0 mA	10.0 mA
	40.0 ~ 59.9 MHz	12.0 mA	13.0 mA	15.0 mA
	60.0 ~ 99.9 MHz	15.0 mA	18.0 mA	20.0 mA
100.0 ~ 160.0 MHz	20.0 mA	25.0 mA	30.0 mA	
symmetry	45 % ~ 55 % at 50 % V <sub>DD</sub> level			
rise & fall time max.	8 ns (10 % V <sub>DD</sub> ~ 90 % V <sub>DD</sub> level)/V <sub>DD</sub> = +1.8 V 5 ns (10 % V <sub>DD</sub> ~ 90 % V <sub>DD</sub> level)/V <sub>DD</sub> = +2.5 V, +2.8 V, +3.0 V, +3.3 V			
"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 max.	15pF HCMOS			
start up time max.	10 ms			
disable/enable delay time max	150 ns / 10 ms			
stand by current max.	10 µA (Pin #1=VIL)			
jitter	deterministic jitter	5 ps max.	norm 1-sigma	7 ps max.
	random jitter	7 ps max.	peak to peak	40 ps max.
contents of reel	1000 pcs. / 3000 pcs.			

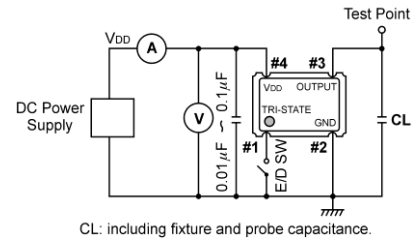
### Dimensions (mm):



### Suggested soldering pad:



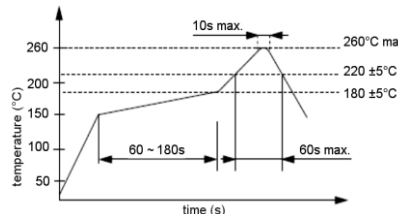
### Test circuit:



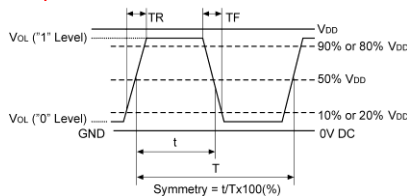
PIN	Connection
1	"L" (0V) "H" or OPEN
2	GND
3	OUTPUT
4	V <sub>DD</sub>

Z: high impedance

### Reflow soldering condition:



### Output Waveform:



### Tape specification:

