



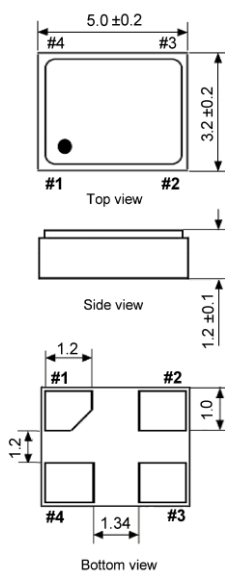
Clock Oscillator

SMD-version

+1.8 / +2.5 / +3.3 V

part no.	12.xxxxx			
model	KXO-V99			
frequency range	0.5 ~ 39.999 MHz	40.0 ~ 59.999 MHz	60.0 ~ 69.999 MHz	70.0 ~ 79.999 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-V99T); -40° ~ +105°C (=KXO-V99E); -40° ~ +125°C (=KXO-V99F)			
storage temperature	-55° ~ +125°C			
supply voltage range	+1.8 V ~ +3.3 V			
supply voltage V _{DD}	standard +3.3 V DC ±5 % available +1.8 V DC ±5 %, +2.5 V DC ±5 %			
supply current max		+1.8 V	+2.5 V	+3.3 V
	1.0 ~ 39.999 MHz	4 mA	6 mA	10 mA
	40.0 ~ 59.999 MHz	6 mA	8 mA	15 mA
	60.0 ~ 69.999 MHz	10 mA	12 mA	20 mA
	70.0 ~ 79.999 MHz	25 mA	30 mA	40 mA
	80.0 ~ 160.0 MHz	30 mA	40 mA	40 mA
160.0 ~ 200.0 MHz	n.a.	65 mA	80 mA	
symmetry	45 % ~ 55 % at 50 % V _{DD} level			
rise & fall time max.	5 ns			
"0" level max.; "1" level min.	VOL: 10 % V _{DD} ; VOH: 90 % V _{DD}			
tri-state control voltage (Pin#1)	VIH: V _{DD} x 0.7 min.; VIL: V _{DD} x 0.3 max.			
output load	1.0 ~ 75.0 MHz 30 pF, 15 pF 75.1 ~ 200.0 MHz 15 pF			
start up time max.	10 ms			
disable/enable delay time	200 ns max. / 10 ms max.			
standby current max.	20 µA			
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.			

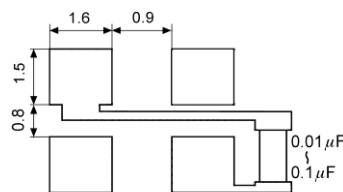
Dimensions (mm):



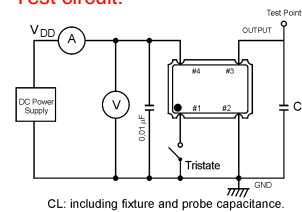
PIN	Connection
1	"L" (0V) "H" or OPEN
2	GND
3	Z OUTPUT
4	V _{DD}

Z: high impedance

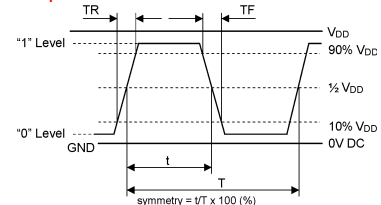
Suggested soldering pad:



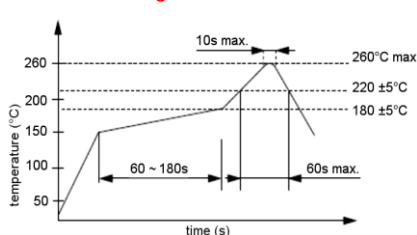
Test circuit:



Output waveform:



Reflow soldering condition:



Tape specification:

