

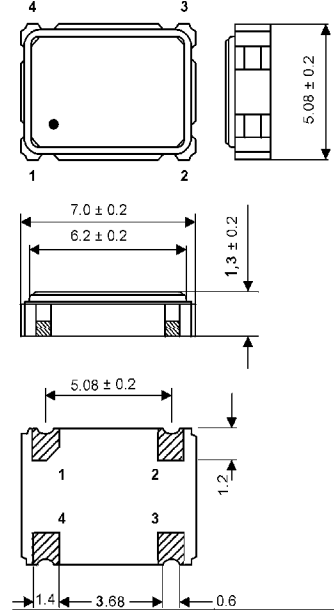


## Clock Oscillator SMD-version

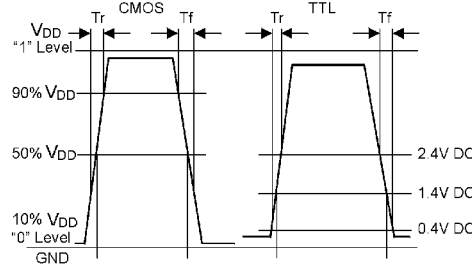
+1.8 / +2.5 / +3.0 / +3.3V

part no.	12.xxxxx																						
model	KXO-V97																						
frequency range	1.0 ~ 50.0 MHz	50.1 ~ 80.0 MHz	80.1 ~ 160.0 MHz																				
frequency stability at -20° ~ + 70°C at -40° ~ + 85°C at -40° ~ +105°C	± 50 ppm ±100 ppm ±120 ppm																						
operating temperature	standard -20° ~ + 70°C available -40° ~ + 85°C (=KXO-V97T) available -40° ~ +105°C (=KXO-V97E)																						
storage temperature	-55° ~ +125°C																						
input voltage V <sub>DD</sub>	standard + 3.3V DC ± 10% available +1.8V DC ± 5% / +2.5V DC ± 5% / +3.0V DC ± 10%																						
input current	<table border="1"> <tr> <td></td> <td>+1.8V</td> <td>+2.5V</td> <td>+3.0V/+3.3V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1.0 ~ 20.0 MHz</td> <td>3.5 mA typ., 6.0 mA max.</td> <td>4.0 mA typ., 11.0 mA max.</td> <td>4.0 mA typ., 6.0 mA max.</td> <td>+1.8V/+2.5V</td> <td>+3.0V/+3.3V</td> <td rowspan="2">30.0 mA typ., 4.0 mA max.</td> </tr> <tr> <td>20.1 ~ 50.0 MHz</td> <td>4.5 mA typ., 6.0 mA max.</td> <td>6.0 mA typ., 11.0 mA max.</td> <td>6.0 mA typ., 11.0 mA max.</td> <td>6.0 mA typ., 11.0 mA max.</td> <td>9.0 mA typ., 66.0 mA max.</td> </tr> </table>				+1.8V	+2.5V	+3.0V/+3.3V				1.0 ~ 20.0 MHz	3.5 mA typ., 6.0 mA max.	4.0 mA typ., 11.0 mA max.	4.0 mA typ., 6.0 mA max.	+1.8V/+2.5V	+3.0V/+3.3V	30.0 mA typ., 4.0 mA max.	20.1 ~ 50.0 MHz	4.5 mA typ., 6.0 mA max.	6.0 mA typ., 11.0 mA max.	6.0 mA typ., 11.0 mA max.	6.0 mA typ., 11.0 mA max.	9.0 mA typ., 66.0 mA max.
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symmetry	50% ± 10% at ½ V <sub>DD</sub> level																						
rise & fall time max.	5 ns																						
"0" level max.	+0.4V																						
"1" level min.	V <sub>DD</sub> - 0.5V																						
output load	1.0 ~ 33.0 MHz 30 pF 33.1 ~ 75.0 MHz 30 pF 75.1 ~ 160.0 MHz 15 pF																						
start up time max.	10 ms	10 ms	4 ms																				
tri-state function	yes																						
disable delay time max.	50 µs																						
enable delay time max.	4 ms																						
phase jitter	(12 kHz – 20 MHz) with 1 ps																						
random jitter max.	7ps																						
peak to peak jitter max.	40ps																						
contents of reel	1000 pcs.																						

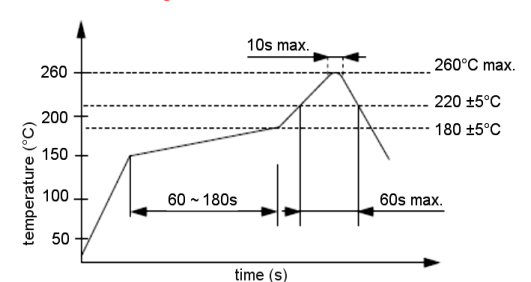
### Dimensions (mm):



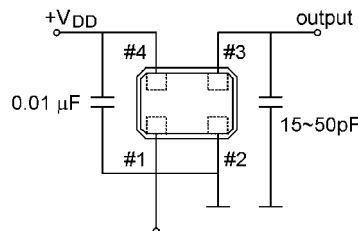
### Output waveform:



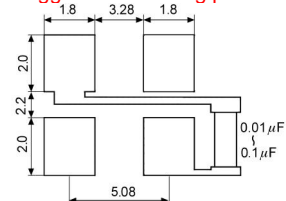
### Reflow soldering condition:



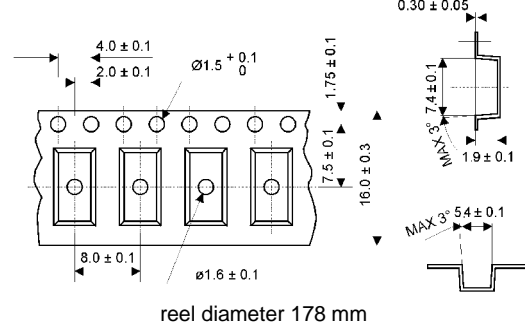
### Test circuit:



### Suggested soldering pad:



### Tape specification:



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

Z: high impedance