

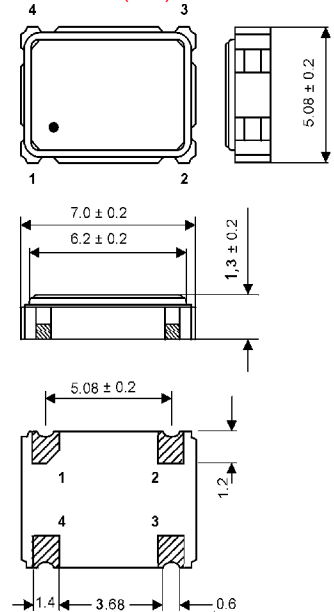


Clock Oscillator SMD-version

+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																				
supply voltage range	+1.8V ~ +3.3V																				
input voltage V _{DD}	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> </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> </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	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 _{DD} level																				
rise & fall time max.	5 ns																				
"0" level max.	+0.4V																				
"1" level min.	V _{DD} -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.																				

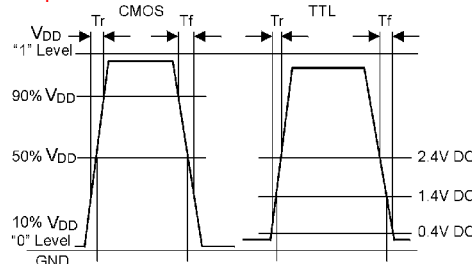
Dimensions (mm):



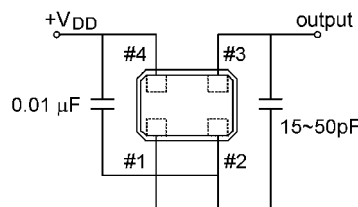
PIN	Connection
1	"L" (0V) "H" or OPEN
2	GND
3	Z OUTPUT
4	V _{DD}

Z: high impedance

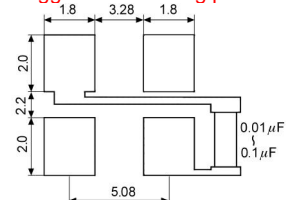
Output waveform:



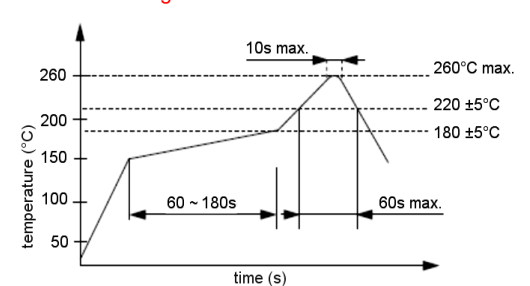
Test circuit:



Suggested soldering pad:



Reflow soldering condition:



Tape specification:

