

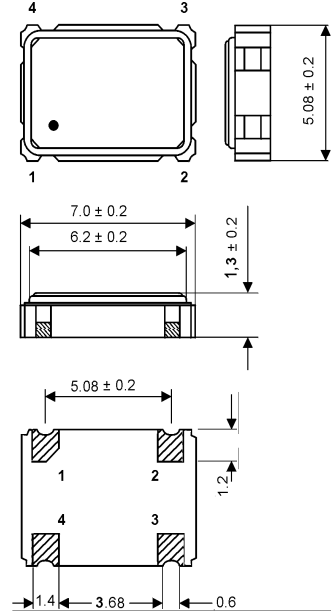


Clock Oscillator SMD-version

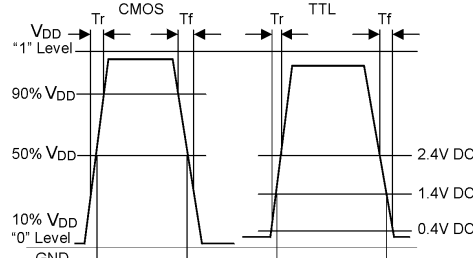
+1.8 / +2.5 / +3.0 / +3.3V

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> <th></th> <th>+1.8V</th> <th>+2.5V</th> <th>+3.0V/+3.3V</th> </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> </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> </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.	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.	<table border="1"> <tr> <th></th> <th>+1.8V/+2.5V</th> <th>+3.0V/+3.3V</th> </tr> <tr> <td>6.0 mA typ., 11.0 mA max.</td> <td>9.0 mA typ., 66.0 mA max.</td> <td>30.0 mA typ., 4.0 mA max.</td> </tr> </table>		+1.8V/+2.5V	+3.0V/+3.3V	6.0 mA typ., 11.0 mA max.	9.0 mA typ., 66.0 mA max.	30.0 mA typ., 4.0 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.																				

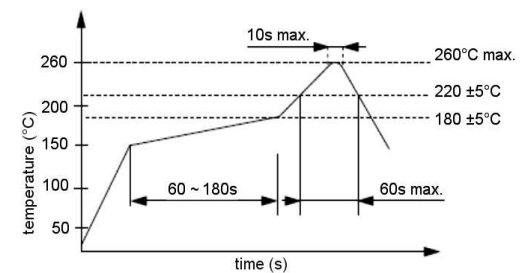
Dimensions (mm):



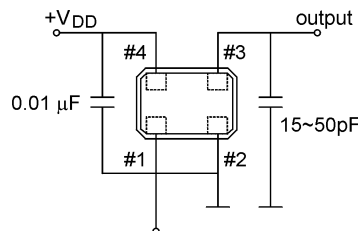
Output waveform:



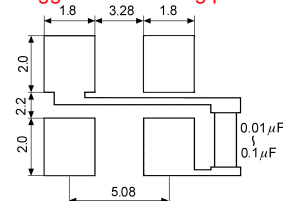
Reflow soldering condition:



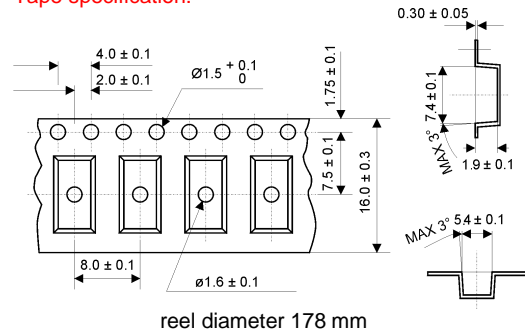
Test circuit:



Suggested soldering pad:



Tape specification:



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

Z: high impedance