



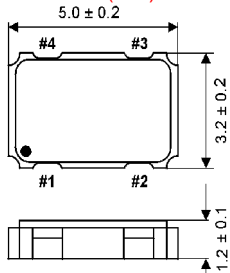
Clock Oscillator

SMD-version

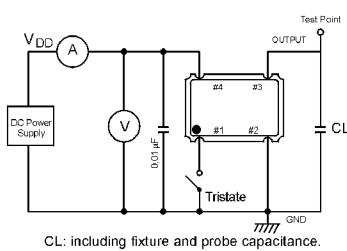
1,8V 2,5V 3,0V 3,3V

part no.	12.xxxxx			
model	KXO-V99			
frequency range	1,0 ~ 200,0 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-V99T) available -40° ~ +105°C (=KXO-V99E)			
storage temperature	-55° ~ +125°C			
symmetry at 1,0 ~ 70,0 MHz at 70,1 ~ 200,0 MHz	45%/55% ± 10% at ½ V _{DD} level 40%/60% ± 10% at ½ V _{DD} level			
rise & fall time	5 ns max.			
"0" level max.	V _{DD} x 0,1V			
"1" level min.	V _{DD} x 0,9 V			
input voltage V _{DD}	standard + 3,3V ± 5% available +1,8V ± 5%/ +2,5V / +3,0V each type ±5%			
input current		+1,8V	+2,5V	+3,0V/+3,3V
1,0 ~ 20,0MHz	3,5 mA typ., 6,0 mA max.	4,0 mA typ., 6,0 mA max.	4,0 mA typ., 6,0 mA max.	
20,1 ~ 50,0MHz	4,5 mA typ., 6,0 mA max.	4,0 mA typ., 11,0 mA max.	6,0 mA typ., 11,0 mA max.	
50,1 ~ 80,0MHz	6,0 mA typ., 11,0 mA max.	6,0 mA typ., 11,0 mA max.	9,0 mA typ., 16,0 mA max.	
80,1 ~ 125,0MHz	30 mA typ., 50 mA max.	30 mA typ., 50 mA max.	30 mA typ., 50 mA max.	
125,1 ~ 165,0MHz	50 mA typ., 65 mA max.	50 mA typ., 65 mA max.	50 mA typ., 65 mA max.	
165,1 ~ 200,0MHz	60 mA typ., 75 mA max.	60 mA typ., 75 mA max.	60 mA typ., 75 mA max.	
output load HCMOS	15 pF			
start up time	10 ms max.			
tristate function	yes			
disable delay time	50 µs max.			
enable delay time	4 ms max.			
stand by current	10 µA max.			
phase jitter	(12 kHz – 20 MHz) with 1 ps			
random jitter	7pS max.			
peak to peak jitter	40pS max.			
contents of reel	1000 pcs.			

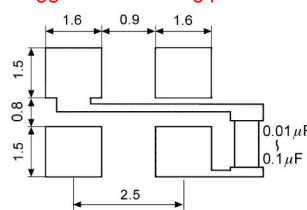
Dimensions (mm):



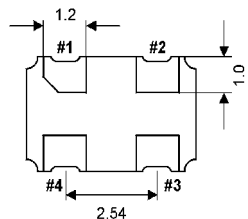
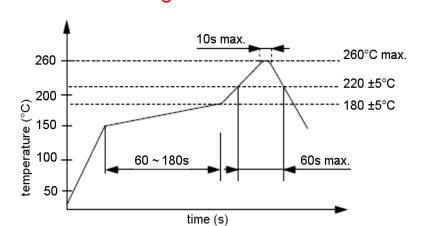
Test circuit:



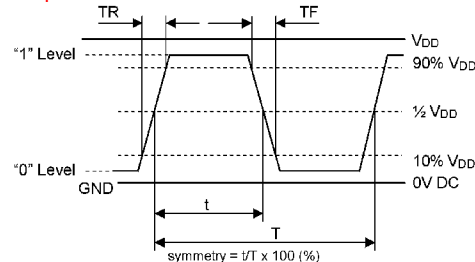
Suggested soldering pad:



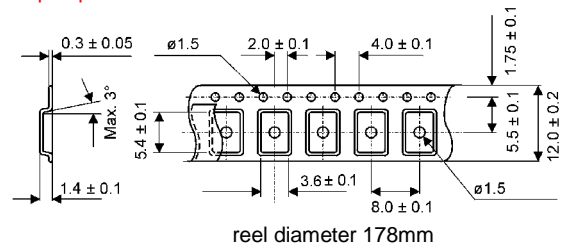
Reflow soldering condition:



Output waveform:



Tape specification:



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