



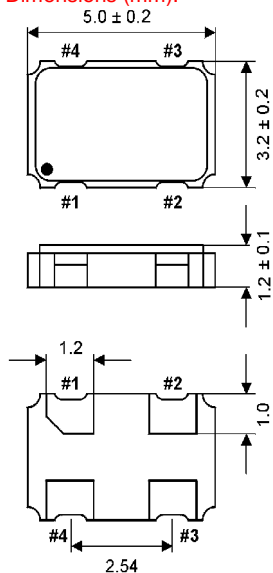
# Clock Oscillator

SMD-version

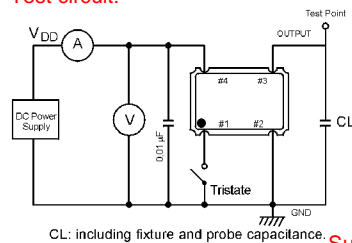
3.3V

part no.	12.xxxxx
model	KXO-V99-kHz
frequency	32.7680 kHz
frequency stability at -20 ~ +70°C at -40 ~ +85°C	± 50 ppm ±100 ppm
operating temperature	standard -20 ~ +70°C available -40 ~ +85°C (=KXO-V99T)
storage temperature	-55 ~ +125°C
supply voltage range	+1.8V ~ +3.3V
input voltage V <sub>DD</sub>	+3.3V DC ±5%
input current max.	1 mA
symmetry	45%/55% ± 10% at ½ V <sub>DD</sub> level
rise & fall time	160 ns typ (1000 ns max.)
"0" level max.	V <sub>DD</sub> x 0.4V
"1" level min.	V <sub>DD</sub> x 0.4 V
output load	15pF
start up time max.	3 ms
tri-state function	yes
disable delay time max.	2000 ns
enable delay time max.	2000 ns
stand by current max.	0.01 µA
random jitter max.	7pS
peak to peak jitter max.	40pS
contents of reel	1000 pcs.

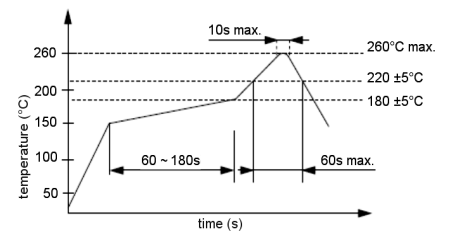
**Dimensions (mm):**



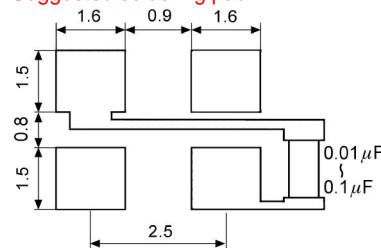
**Test circuit:**



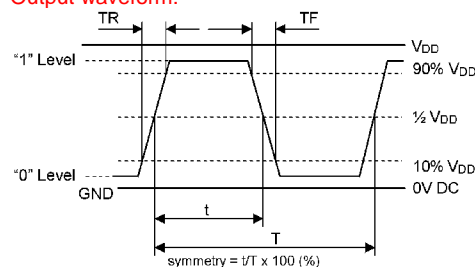
**Reflow soldering condition:**



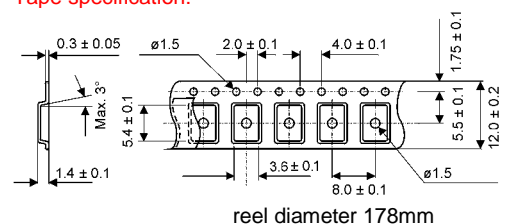
**Suggested soldering pad:**



**Output waveform:**



**Tape specification:**



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

Z: high impedance