



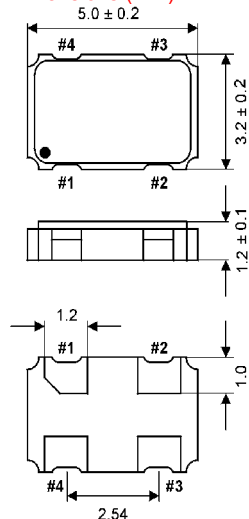
Clock Oscillator

SMD-version

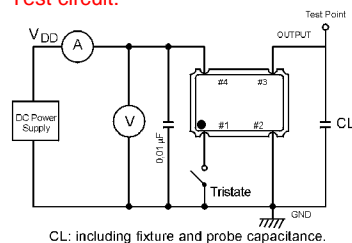
3.3V

part no.	12.94613
model	KXO-V99
frequency	20.0 MHz
frequency stability at -20° ~ +70°C	±50 ppm
operating temperature	-20° ~ +70°C
storage temperature	-55° ~ +125°C
symmetry	45%/55% ± 10% at ½ V _{DD} level
rise & fall time max.	4 ns
"0" level max.	V _{DD} x 0.1V
"1" level min.	V _{DD} x 0.9 V
input voltage V _{DD}	+3.3V ±5%
input current	4.0 mA typ., 6.0 mA max.
output load	15pF
start up time max.	10 ms
tristate function	yes
disable delay time max.	50 µs
enable delay time max.	4 ms
stand by current max.	10 µA
phase jitter	(12 kHz – 20 MHz) with 1 ps
random jitter max.	7ps
peak to peak jitter max.	40ps
contents of reel	1000 pcs.

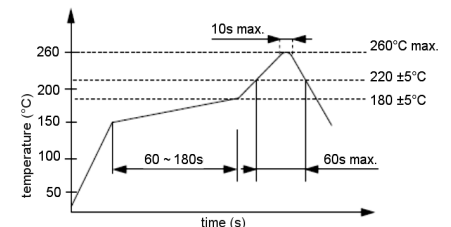
Dimensions (mm):



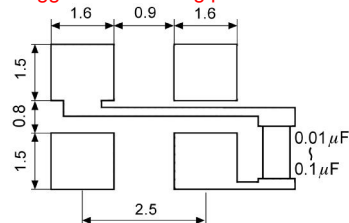
Test circuit:



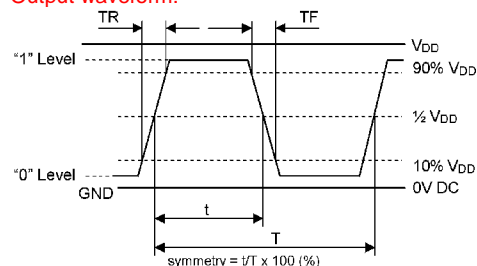
Reflow soldering condition:



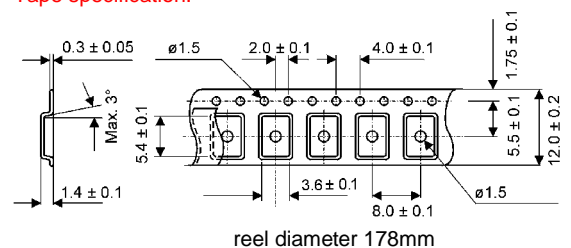
Suggested soldering pad:



Output waveform:



Tape specification:



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