



# VCTCXO HCMOS

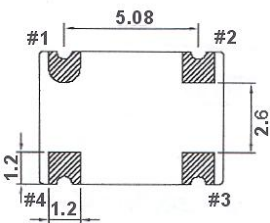
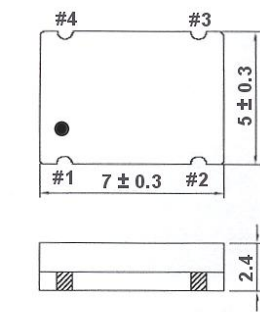
SMD-version

+2.8 / +3.3 V

Voltage Controlled Temperature Compensated Crystal Oscillator

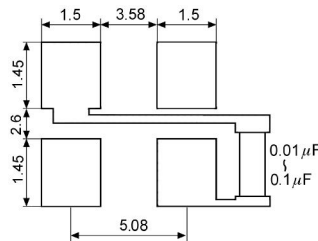
part no.	12.xxxxx	
model	KXO-82	
frequency range	8.0 ~ 40.0 MHz	
initial frequency tolerance max.	±1.5 ppm	
frequency stability	vs. temp.range	±1.0 ppm over -40°C ~ +85°C (referred to +25°C)
	vs. input voltage	±0.3 ppm at V <sub>DD</sub> ± 5 % DC
	vs. load max.	±0.3 ppm / 15 pF ±5 %
	vs. aging max.	±1 ppm / year at +25°C
output	load	15 pF
	waveform	HCMOS
operating temperature range	-40°C ~ +85°C	
storage temperature range	-40°C ~ +90°C	
supply voltage range	+1.6 V ~ 3.6 V	
input voltage V <sub>DD</sub>	+2.8 V DC ± 5 % or +3.3 V DC ± 5%	
input current max.	7.0 mA	
start-up time max.	3 ms	
symmetry	40 % / 60 % at ½ V <sub>DD</sub> level	
rise and fall time max.	5 ns (10 % V <sub>DD</sub> ~ 90 % V <sub>DD</sub> level)	
"0" level max.	V <sub>OL</sub> : 10 % V <sub>DD</sub>	
"1" level min.	V <sub>OH</sub> : 90 % V <sub>DD</sub>	
frequency control voltage (VC)	½ V <sub>DD</sub> ± 1 V DC	
frequency adjustment (pullability) min.	±5 ppm ~ ±20 ppm	
phase noise max.	-80 dBc/Hz at 10 Hz -110 dBc/Hz at 100 Hz -130 dBc/Hz at 1 kHz -145 dBc/Hz at 10 kHz -150 dBc/Hz at 100 kHz -150 dBc/Hz at 1 MHz	
contents of reel	2000 pcs.	

**Dimensions (mm):**

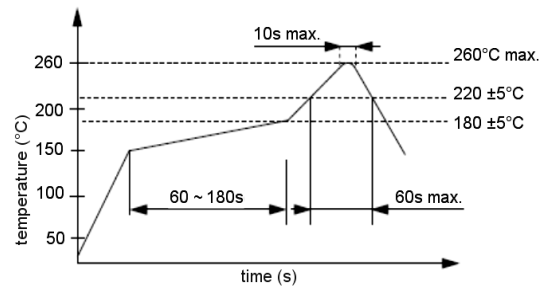


PIN	CONNECTION
1	VC
2	GND
3	OUTPUT
4	V <sub>DD</sub>

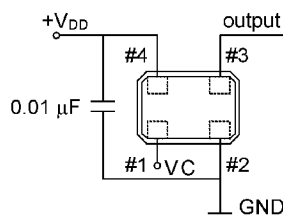
**Suggested soldering pad:**



**Reflow soldering condition:**



**Test circuit:**



**Tape specification:**

