

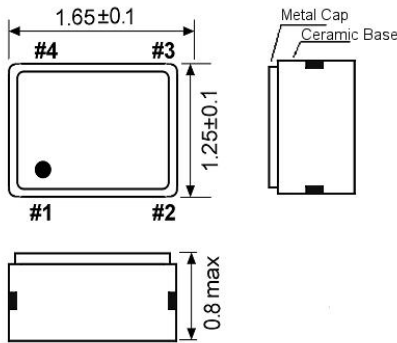
TCXO clipped sine wave

SMD-version +1.8 / +2.5 / +3.3 V

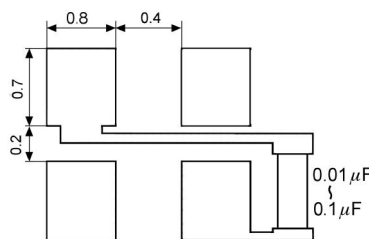
Temperature Compensated Crystal Oscillator

part no.	12.xxxxx	
model	KXO-88	
frequency range	13.0 ~ 52.0 MHz	
frequency tolerance max.	±2.0 ppm at 25°C (after 2 times reflows)	
frequency stability	vs. temp. range max.	±1.0 ppm over -30°C ~ +85°C (referred to +25°C) ±2.5 ppm over -40°C ~ +85°C (referred to +25°C)
	vs. input voltage max.	±0.2 ppm at V _{DD} ±5 %
	vs. load max.	±0.2 ppm
	vs. aging max.	±1 ppm / year at +25°C
output	load	10k Ohm ±10 % // 10 pF ±10 %
	voltage min.	0.8 V _{p-p} at 10k Ohm // 10 pF ±10 %
	waveform	clipped sine wave
operating temperature range	-30°C ~ +85°C	
storage temperature range	-40°C ~ +85°C	
supply voltage range	+1.8 V ~ 3.6 V	
max. ratings	-0.6 V to V _{DD} +0.6 V (+4.6 V max.)	
supply voltage V _{DD}	+1.8 V DC ±10 %; +2.5 V DC ±10 %; +3.3 V DC ±10 %	
supply current max.	2.0 mA max. (13 MHz ≤ F ≤ 26MHz) 2.5 mA max. (26 MHz < F ≤ 52MHz)	
start-up time max.	2 ms	
phase noise max.	-110 dBc/Hz at 100 Hz -130 dBc/Hz at 1 kHz -145 dBc/Hz at 10 kHz -155 dBc/Hz at 100 kHz	
contents of reel	3000 pcs.	

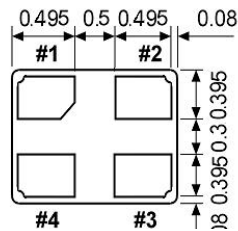
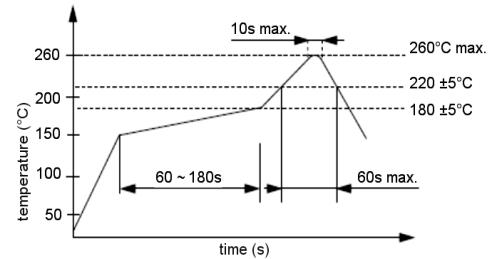
Dimensions (mm):



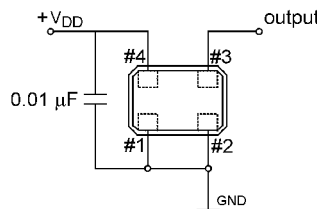
Suggested soldering pad:



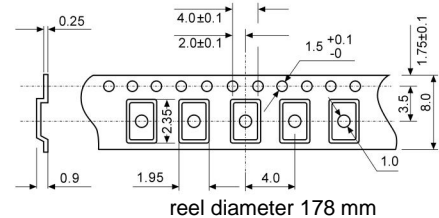
Reflow soldering condition:



Test circuit:



Tape specification:



Pin	Connection
1	GND
2	GND
3	OUTPUT
4	V _{DD}