



اسم المادة: الكترونك
اسم التدريسي: ضحى علي طالب
المرحلة: الثانية
السنة الدراسية: 2023-2024
رقم التجربة: 6
عنوان التجربة: Clamper circuit



Objective: -

to fix the positive or the negative peak excursions of a signal to a defined value by shifting its DC value. The clamper does not restrict the peak-to-peak excursion of the signal; it moves the whole signal up or down so as to place the peaks at the reference level.

Circuit elements:

AC power

Diode

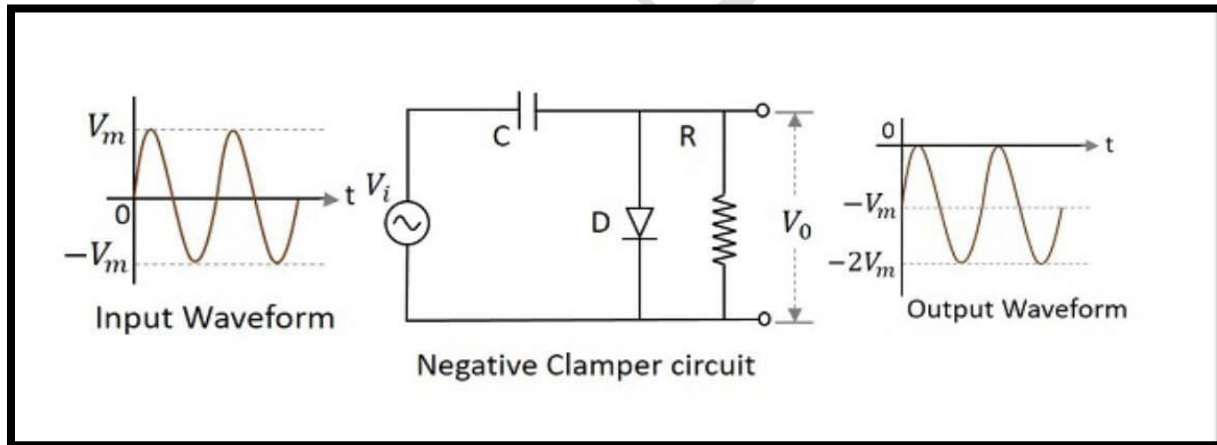
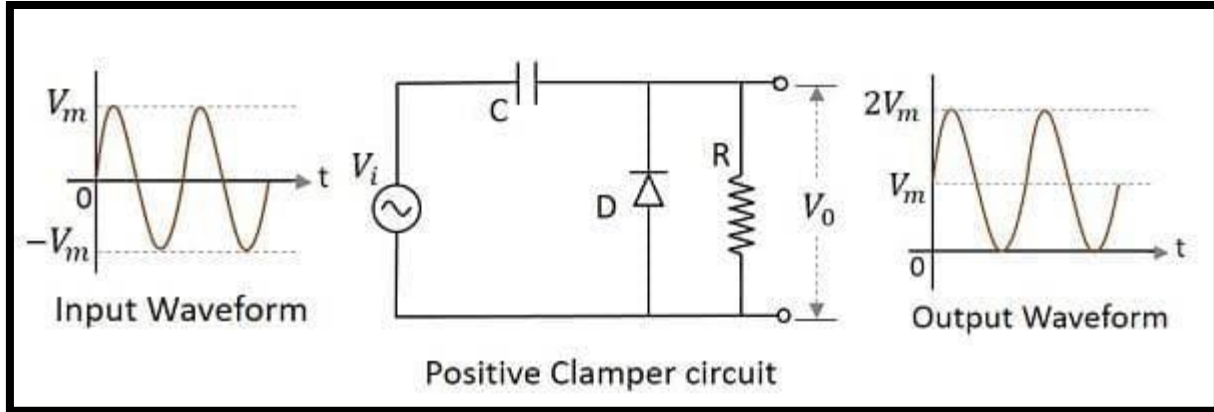
Resistor

Oscilloscope

Theory

A clamper is an electronic circuit that changes the DC level of a signal to the desired level without changing the shape of the applied signal. In other words, the clamper circuit moves the whole signal up or down to set either the positive peak or negative peak of the signal at the desired level.

The dc component is simply added to the input signal or subtracted from the input signal. A clamper circuit adds the positive dc component to the input signal to push it to the positive side. Similarly, a clamper circuit adds the negative dc component to the input signal to push it to the negative side.



Procedure:

- 1-Connect the electrical circuit according to the figure 1
- 2-Then connect the circuit with an oscilloscope to see which signal is entering and leaving the circuit

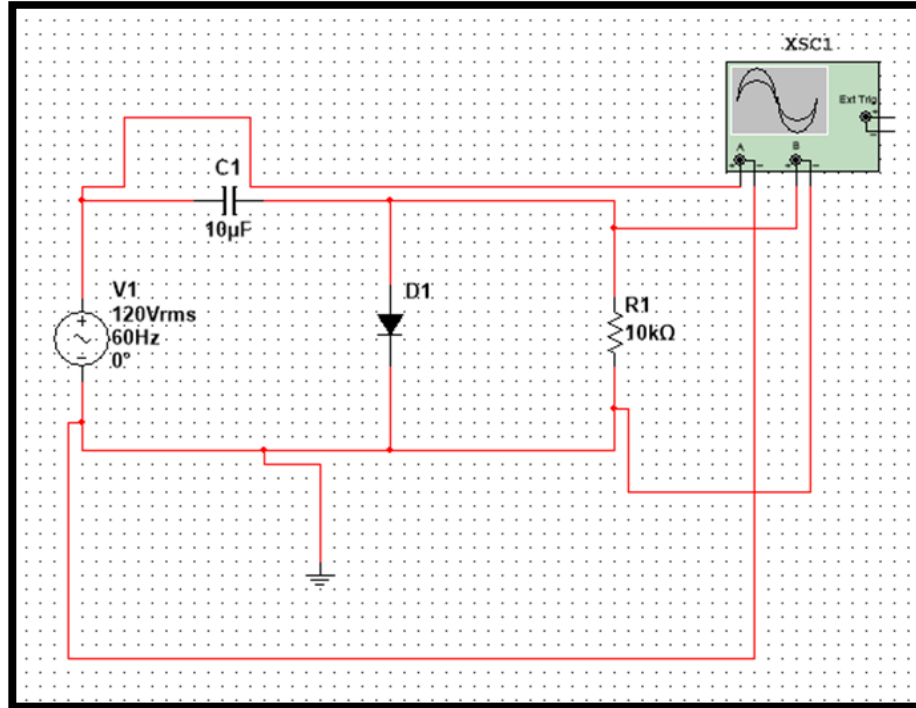


figure 1

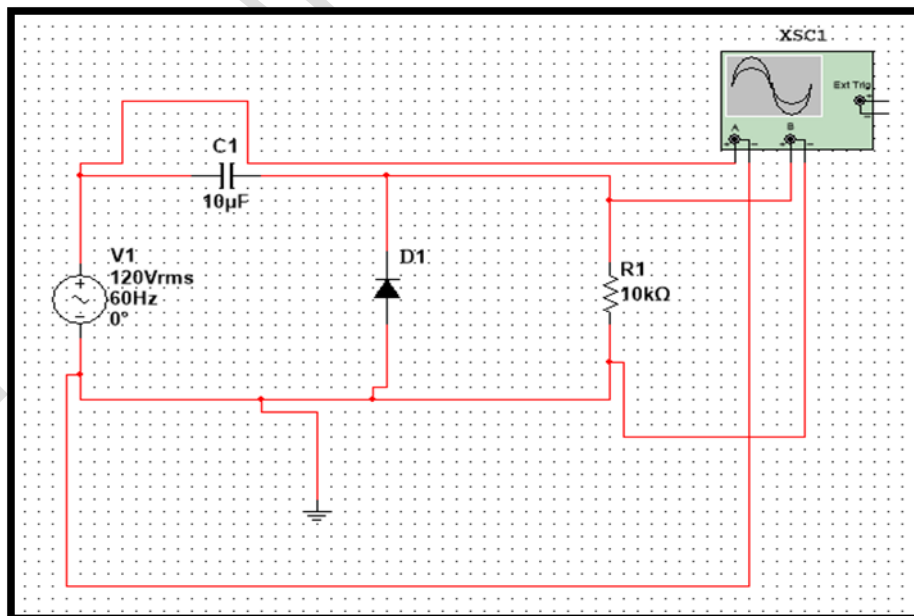


figure 2