EXPERIMENT 2

CLIPPING CIRCUITS

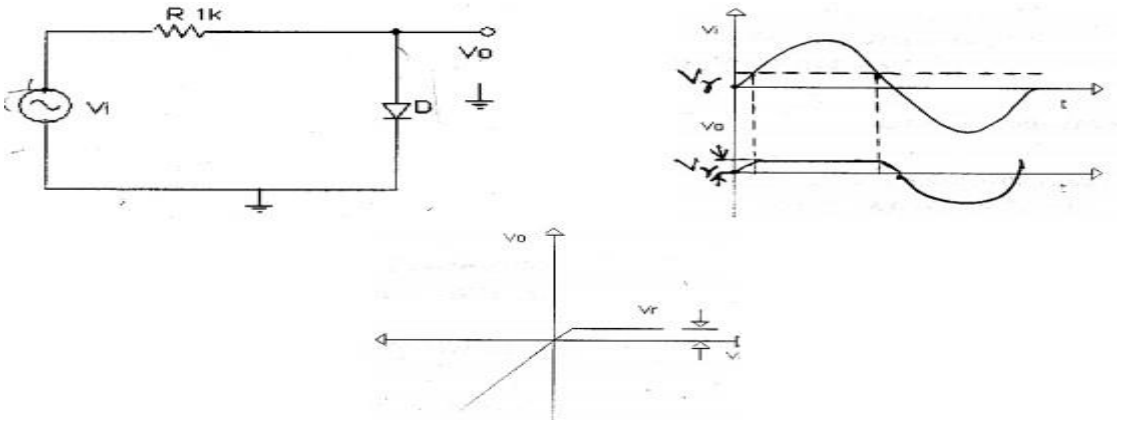
EQUIPMENT REUQIRED:

- Diode-IN4007, capacitors, resistor,power supply,oscilloscope,function generator,multimeter,etc.
- Choose Rf=10Ω, Rr=1MΩ R=$\overline{\sqrt{RfRr}}$ =3.3$K\Omega$

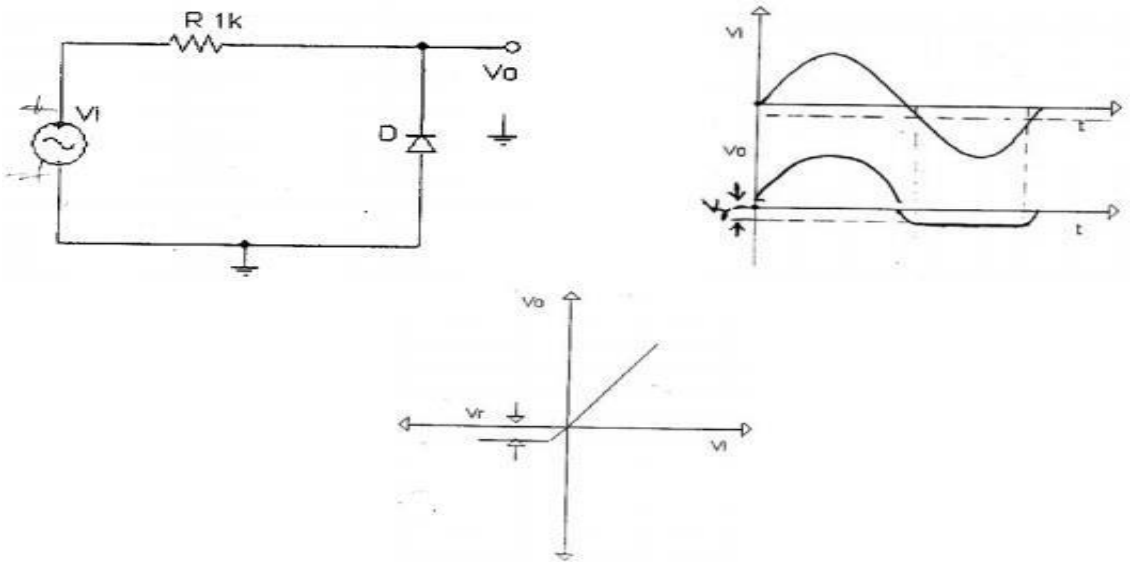
EXPERIMENTAL PROCEDURE:

a) Connections are made as shown in the circuit diagram.
b) A sine wave input Vi whose amplitude is greater than the clipping level is applied.
c) Output waveform Vo is observed on the oscilloscope.
d) Clipped voltage is measured and verified with the designed values.

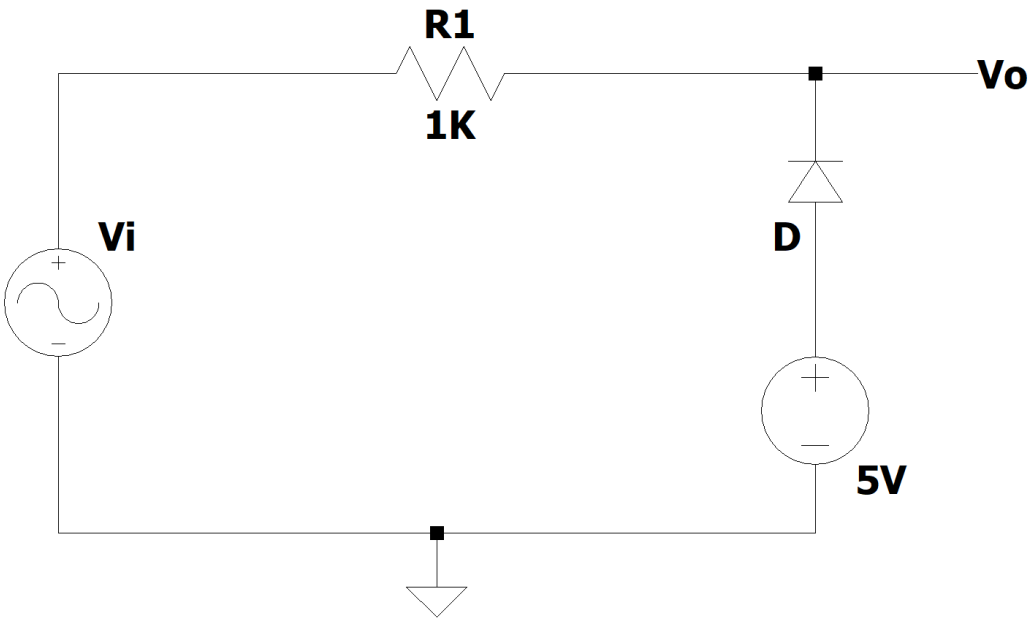
1. To Remove Positive Voltage Peak Above +Vγ Level



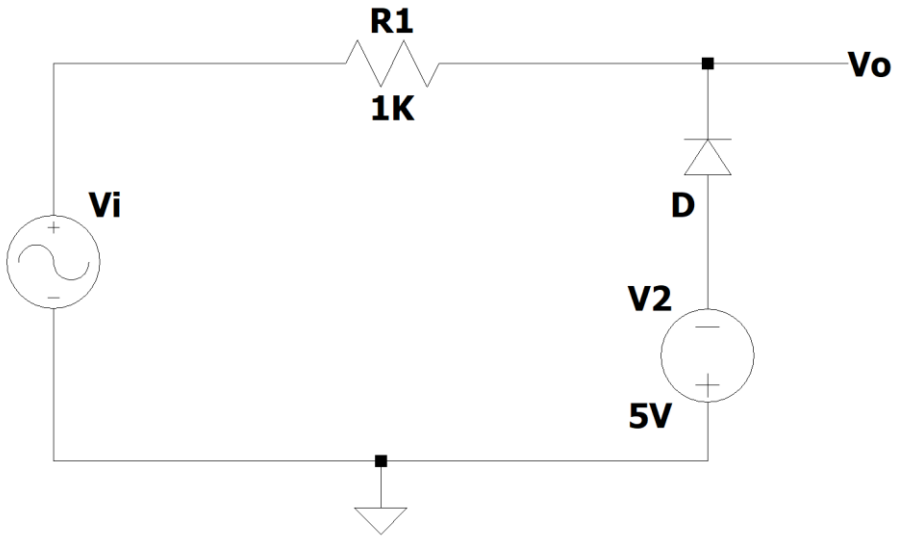
2. To Remove Negative Voltage Peak Below -Vγ Level:



3. **Adding Extra DC Voltage Source (+5V)**



4. **Adding Extra DC Voltage Source (-5V)**



QUESTIONS:

1. What could happen if the diode's type would be changed from silicon to germanium?
2. Try to explain the logic behind the result of circuits 3 and 4.
3. Why a diode act like an open circuit? In which circumstances this occur?