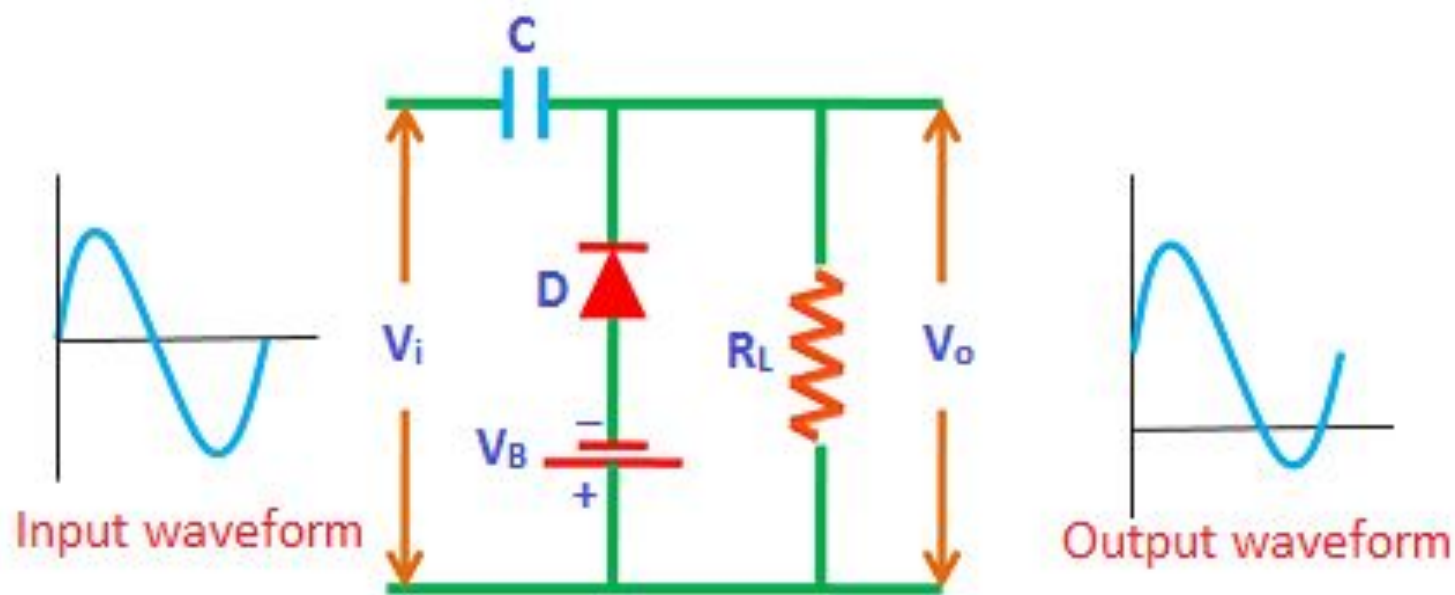


Positive Clamper with Negative Bias

Elementrix Classes

Positive Clamper with Negative Bias

- ❑ A positive clamper with negative bias refers to a clamping circuit that shifts the entire AC waveform of an input signal in the positive direction and introduces an additional negative DC bias. This negative bias is achieved by adding an external negative DC voltage source.



Positive clamper with negative bias

❖ **During negative half cycle:**

During the negative half cycle, the battery voltage reverse biases the diode when the input supply voltage is less than the battery voltage. As a result, the signal appears at the output.

When the input supply voltage becomes greater than the battery voltage, the diode is forward biased by the input supply voltage and hence allows electric current through it. This current will flow to the capacitor and charges it.

❖ **During positive half cycle:**

During the positive half cycle, the diode is reverse biased by both input supply voltage and the battery voltage. As a result, the signal appears at the output. The signal appeared at the output is equal to the sum of the input voltage and capacitor voltage.

पढ़िए और पढ़ाइये

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