Negative Clamper with Negative Bias

Elementrix Classes

Negative Clamper with Negative Bias

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



During positive half cycle:

During the positive half cycle, the diode is forward biased by both input supply voltage and battery voltage. As a result, current flows through the capacitor and charges it.

During negative half cycle:

During the negative half cycle, the battery voltage forward biases the diode when the input supply voltage is less than the battery voltage. When the input supply voltage becomes greater than the battery voltage, the diode is reverse biased by the input supply voltage and hence signal appears at the output.



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