How does the diode clamper circuit clamp

Asked 1 year, 6 months ago Active 1 year, 6 months ago Viewed 351 times

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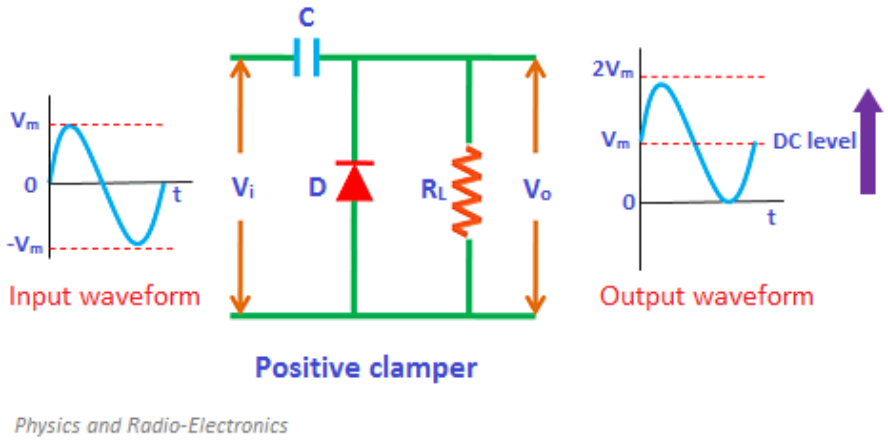
If you look at the standard Clamper circuit(using diode and capacitor), we a load taking across diode(resistor in parallel to R), but what makes no sense is, if R and diode D in parallel, then aren't there points where the load voltage(Vout) just gets clamped to diode voltage of apps 0.7 V?



Also, how would I clamp a regular(0-Vcc) square wave to a (-Vcc to +Vcc) square wave using opamps.

Reference

diodes level-shifting

edited Apr 14 '18 at 23:10
Dave Tweed ♦
140k 11 179 311

asked Apr 14 '18 at 17:52
Mr. Johnny Doe
8 3

2 It explains fully in your link how this works ....did you read the explanation? – Jack Creasey Apr 14 '18 at 18:39

it makes no sense to me somwhow – Mr. Johnny Doe Apr 15 '18 at 11:00

1 Answer

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It actually gets clamped to around -0.7V from the perspective of the load. Perhaps a simulation will make it clearer to you what is happening.

Falstad Simulation

For your second question you would AC couple the square wave into the op amp biased to ground and provide a gain of 2. Sim link below.

Falstad Simulation