

Basic Electronics

# Electronics

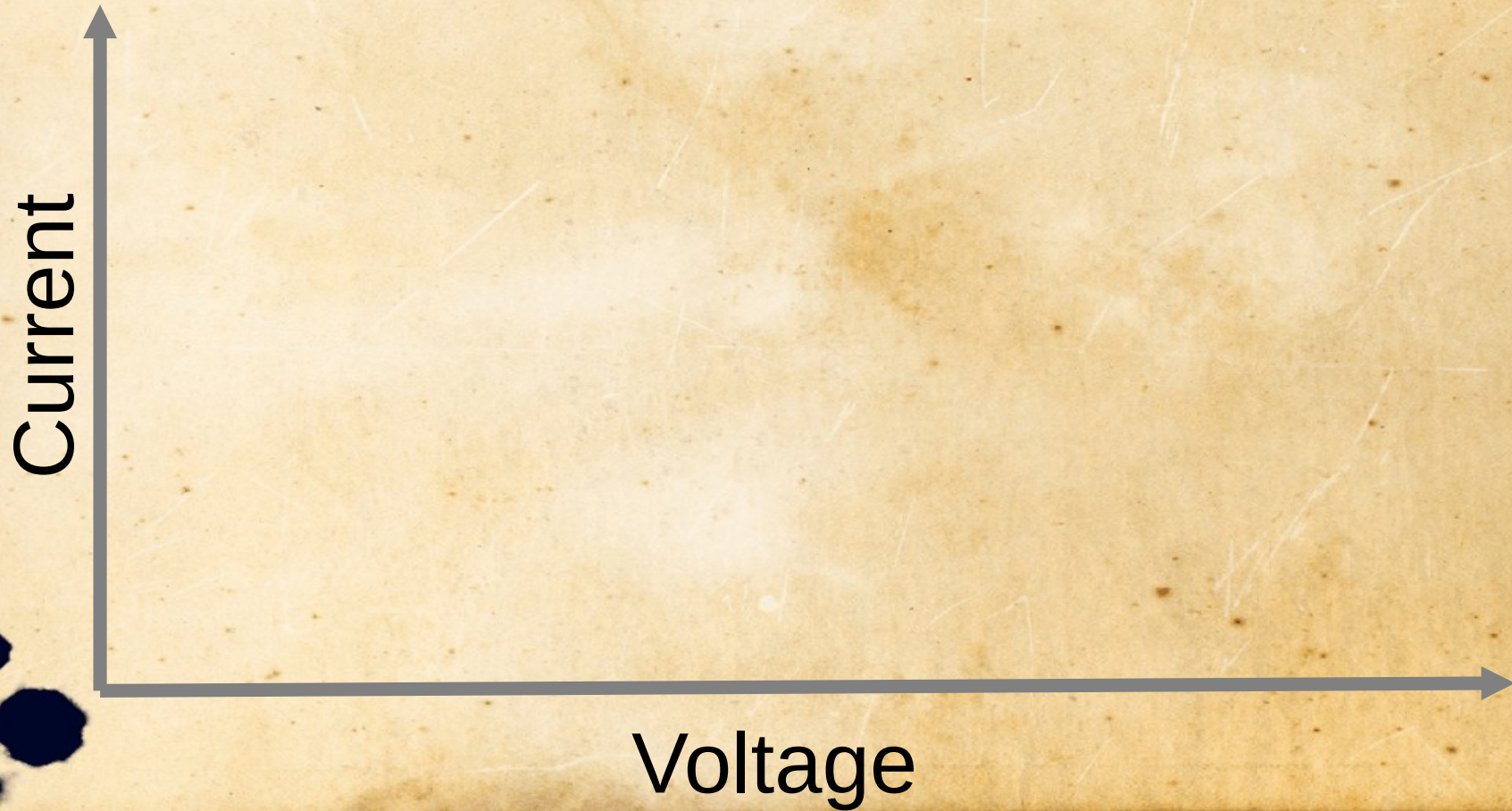
Diode Applications



# Lecture Contents

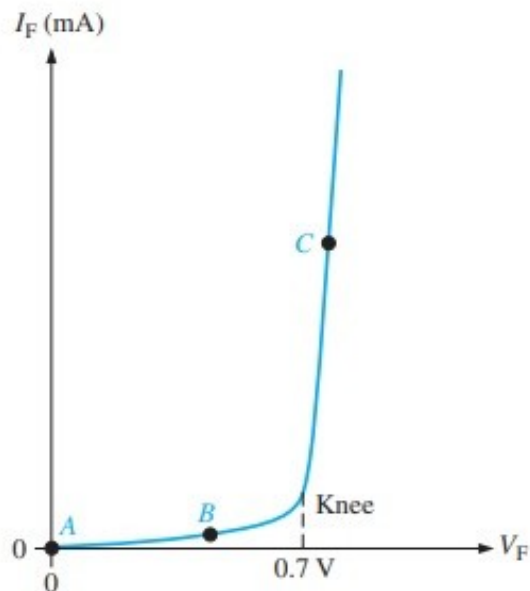
- Characteristics of a Diode
- Diode Applications
  - Rectifier (AC to DC)

# Graph Current versus Voltage for a Resistor



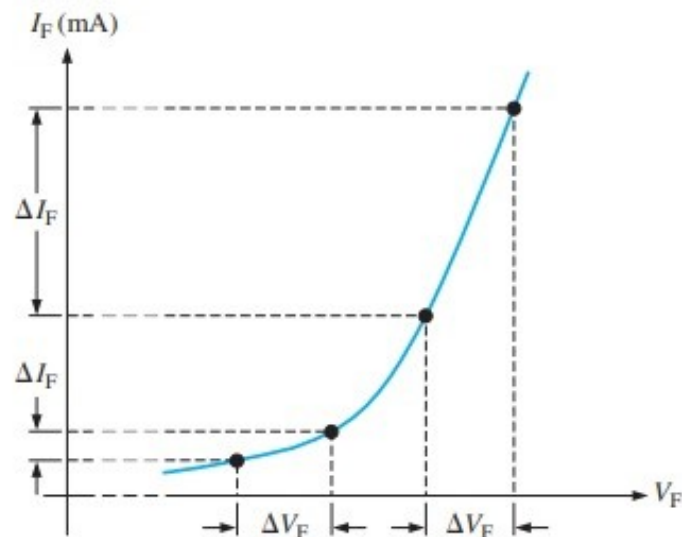


### Relationship of voltage and current in a forward-biased diode

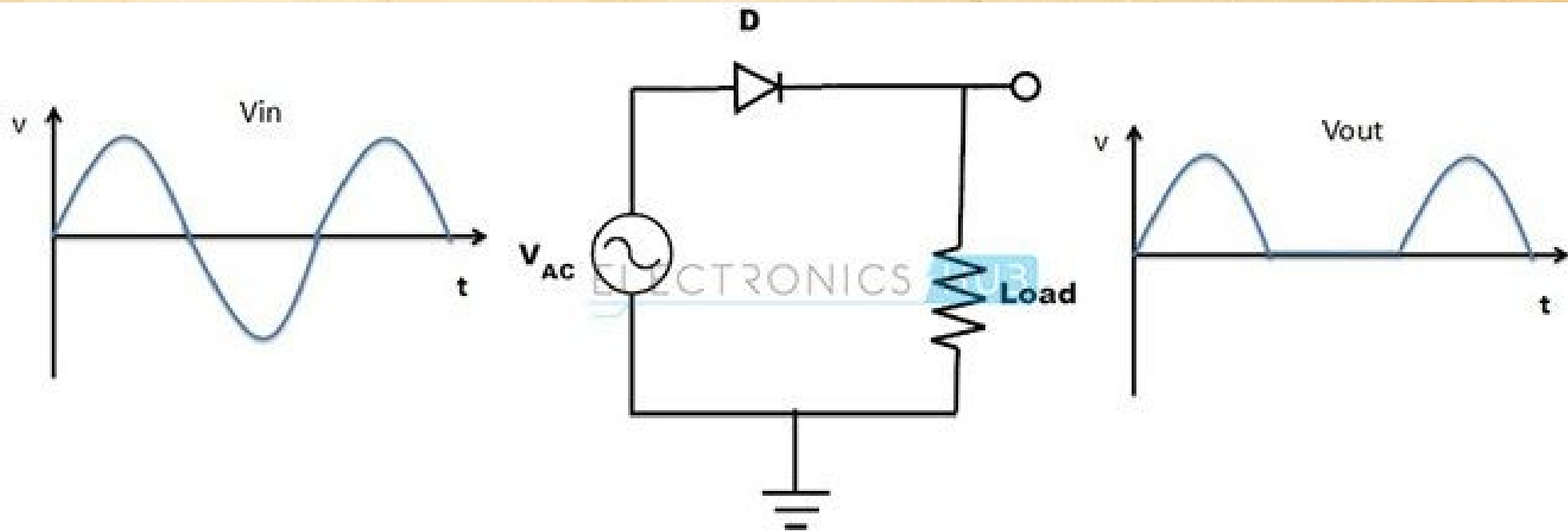


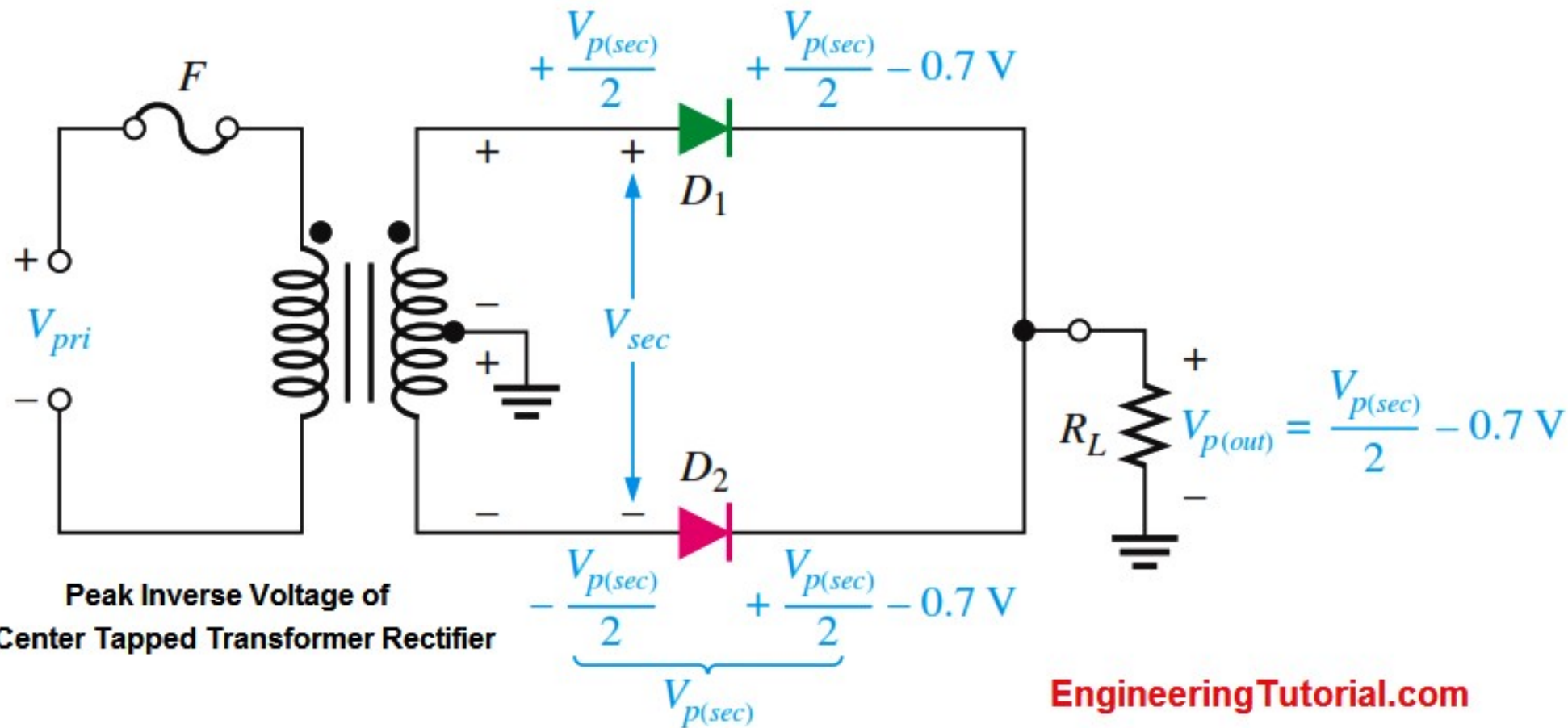
a). V-I characteristic curve for forward bias.

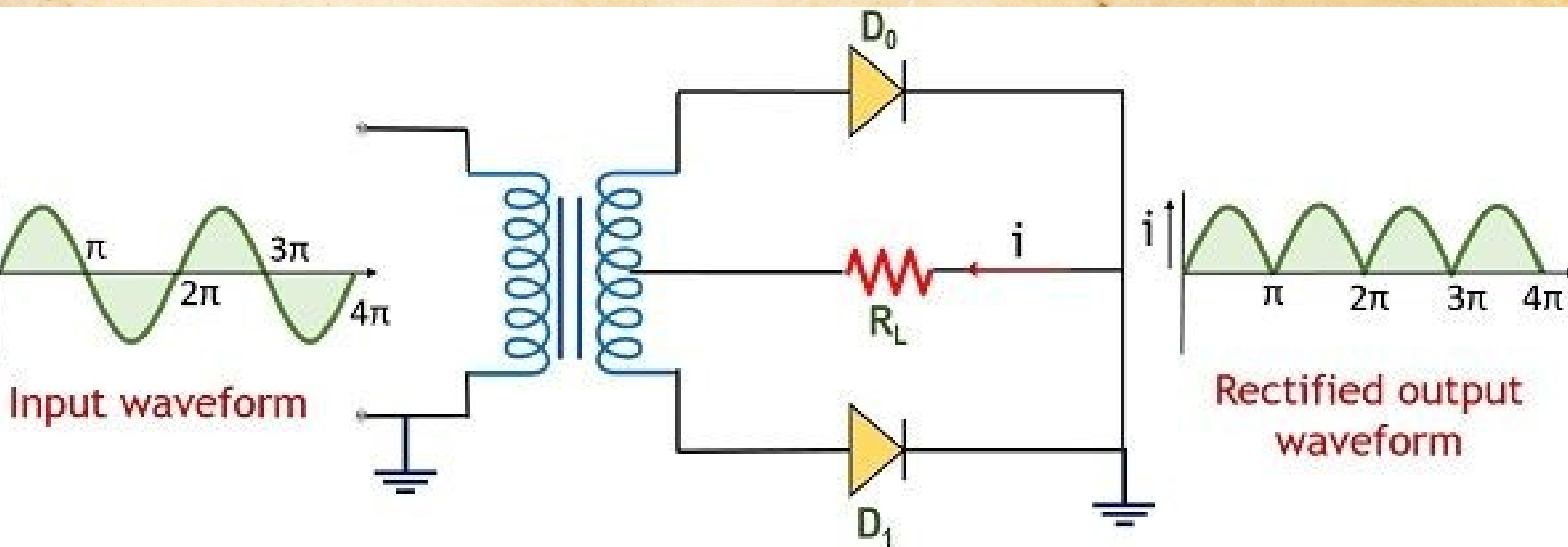
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b). Expanded view of a portion of the curve in part (a).  
The dynamic resistance  $r'_d$  decreases as you move up the curve, as indicated by the decrease in the value of  $\Delta V_F / \Delta I_F$ .



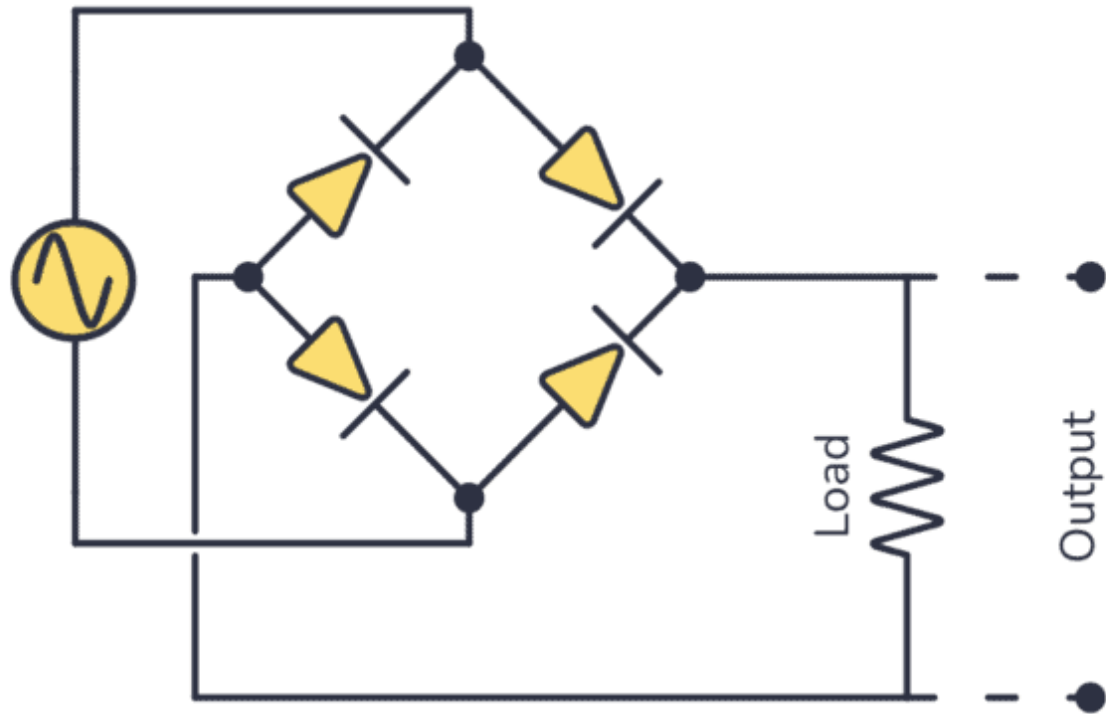
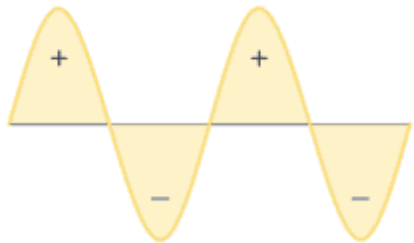




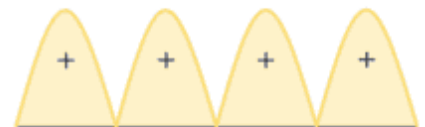
Working of Centre-Tap Full-Wave Rectifier



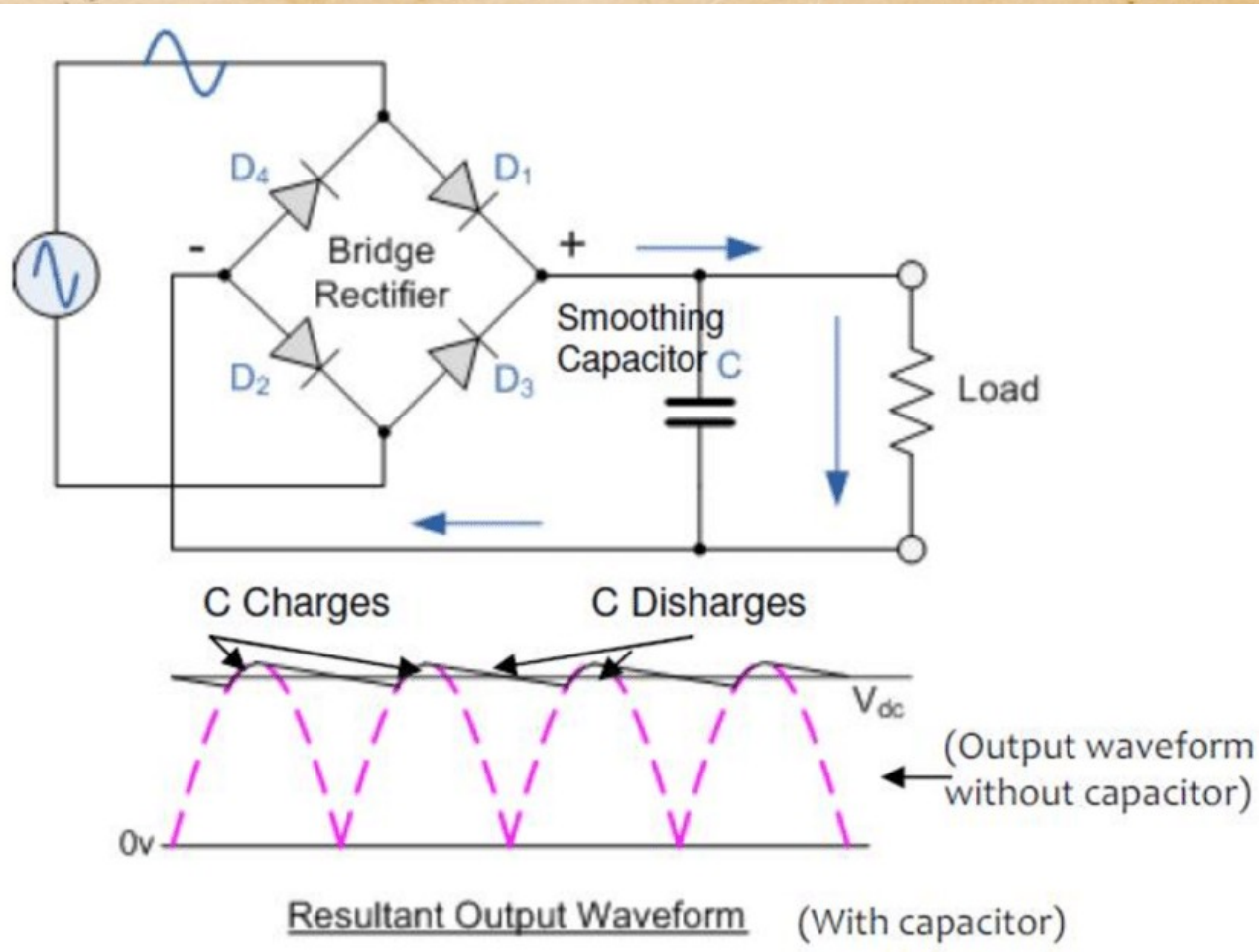
AC waveform supply



Rectified waveform







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Diode Applications