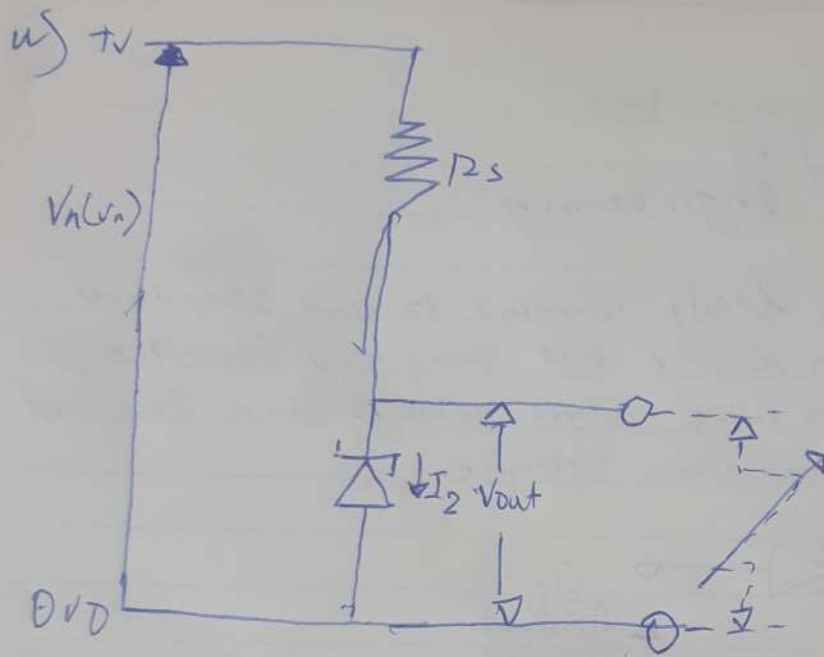


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$$\text{Minimum resistance} = \frac{V_s - V_f}{I_D}$$

$$= \frac{12.74 - 10}{0.5} = 5.48 \Omega$$

$$w) \text{ load current } I_L = \frac{V_R}{R_L} = \frac{1}{500} = 0.002 \text{ A or } 2 \text{ mA}$$



- + R_s - Resistor
- + V_s - Voltage Source
- + V_{out} - Stabilized output voltage
- + R_L - Load Resistance
- + I_2 - Load Current Across Load Resistor

② Max Power = 5W $I_2 = 500\text{mA} = 0.5\text{A}$, 20V_{max}

① Maximum Current = $\frac{\text{Max Power}}{\text{Voltage}} = \frac{5\text{W}}{V} = 0.5\text{A}$

$V_2 = 10\text{volts}$

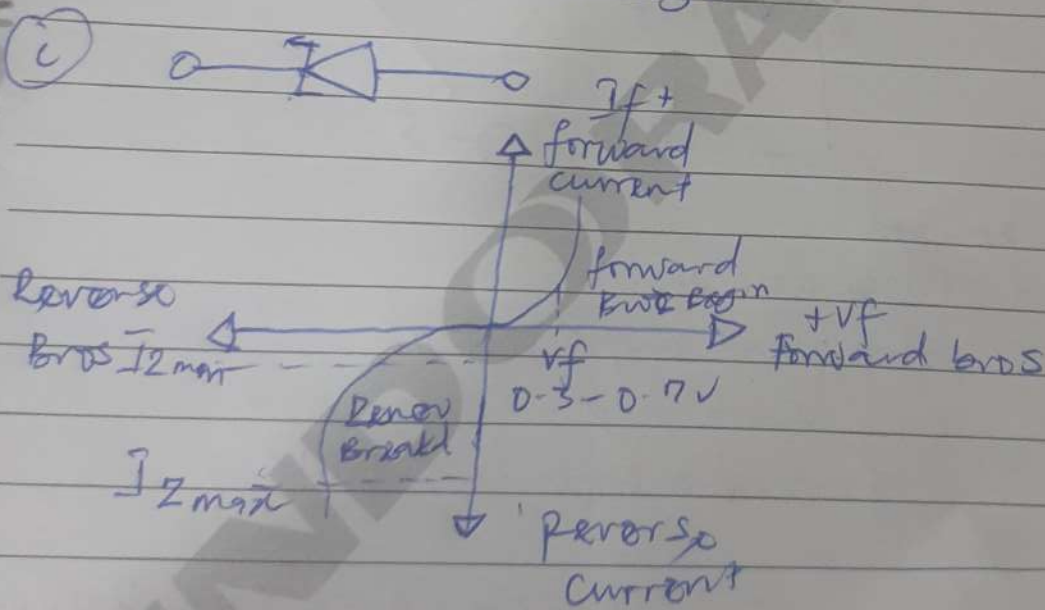
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Nkanga, Fromabas. Imo

18/ENG02/061

Computer Engineering

① A Zener diode similar to the standard PN Junction diode but they are specifically designed to have a low voltage and specified Reverse Breakdown Voltage



I_V - characteristic curve