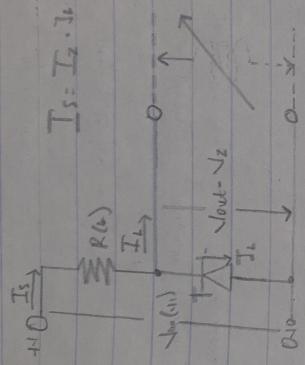


$$T_z = (600 - 20) \ln A$$

$$480 \ln A = 0.48 \ln A$$

1000



2. Power (P) = 5 watts

Max current = max power = $0.5 = 5 = 1 = 0.5 \frac{1}{5}$
 voltage ↓

∴ $V = 10 \text{ volts}$

Current (I) = 500mA = 0.5 A

∴ $0.5 = 0.637 \sqrt{I_{max}}$

$= 0.637 \times 20$

$= 12.74 \sqrt{I_{max}}$

$R_s = \frac{V_s - V_z}{I} = \frac{12.74 - 10}{0.5} = 5.48 \Omega$

$I_s = I_z + I_L$

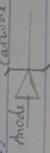
$I_z = I_s - I_L$

$I_L = \frac{V_z}{R} = \frac{10}{500} = 0.02 \text{ A}$

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1. A Zener diode is a diode in which current flow from the anode to the cathode, and it is reverse biased.

(i)



CHARACTERISTICS OF ZENER DIODE

