$$\times 1$$

$$\times \frac{1}{4}$$

$$I_{in} = \frac{V_{DD} - V_{GS,1}}{R_M}$$

$$V_{GS,1}$$

$$\frac{1}{g_m}$$

$$v_s$$

$$v_{out}$$

$$Z_L$$

$$i_s$$

$$V_{DS} > V_{od} = V_{gs} - V_T$$

$$R_L$$

$$I_D$$

$$V_{DD}$$

$$+$$

$$V_{DS} > V_{od} = V_{gs} - V_T$$

$$-$$