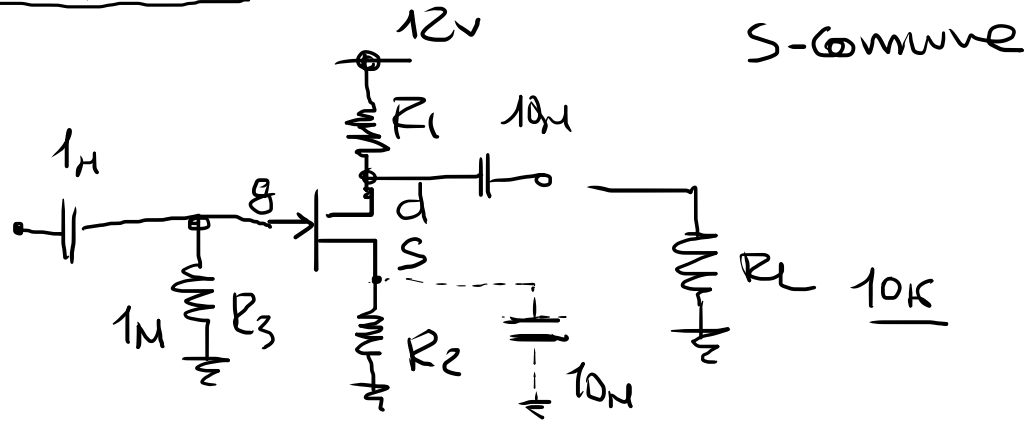


Jfet a source

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S-Common

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$r_{ds(on)} = 50 \Omega$,

$I_{DSS} = 30 \text{ mA}$

==

• $r_{ds(on)} = 50 \Omega$

• $I_D \approx 75\% \cdot I_{Dmax} = 0.75 \cdot 30 \text{ mA} \approx \underline{20 \text{ mA}}$

$V_+ = I_D \cdot R_1 + \underbrace{V_{DS}}_{I_D \cdot r_{ds(on)}} + I_D \cdot R_2$

$12 \text{ V} = I_D (R_1 + R_2)$

$\underline{R_1 + R_2} = \frac{12}{0.020} = \underline{600 \Omega}$

• R_2 : 25% V_+ $\Rightarrow V_{DS} = 12 \cdot 0.25 = 3 \text{ V}$

$R_2 = \frac{3 \text{ V}}{20 \text{ mA}} = \underline{\underline{150 \Omega}}$

$R_1 \approx 600 - R_2 = \underline{\underline{450 \Omega}}$

$A \approx \frac{R_1}{R_2} = \frac{450 \Omega}{150 \Omega} \approx \underline{\underline{3}}$