

# **circuit-invader: circuits drawn with the $\text{\LaTeX}$ 's circuitikz package**

**A collection**

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# 1 Bipolar-based circuits

## 1.1 Common emitter

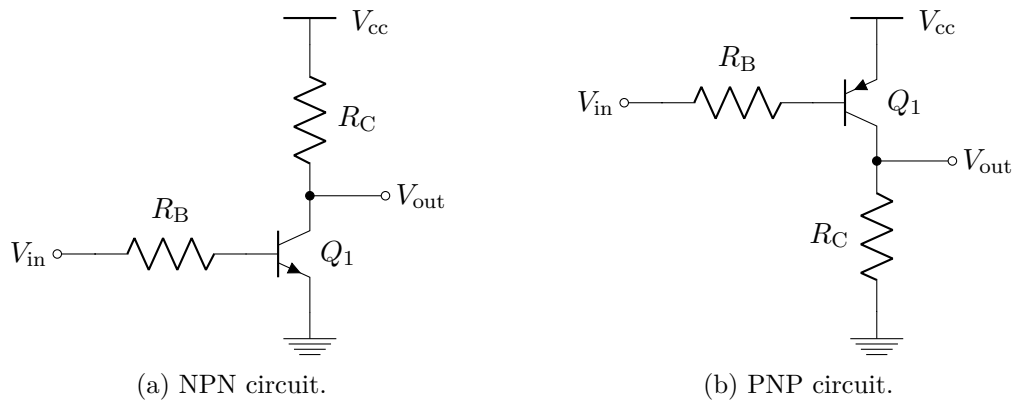


Figure 1.1: Common emitter bipolar transistor, with direct coupling at input.

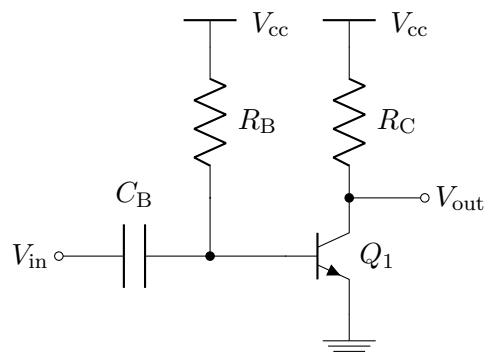


Figure 1.2: Common emitter bipolar NPN transistor polarized by current injection to the base, with capacitive coupling at input.

## 1.2 Common collector

## 1.3 Common base

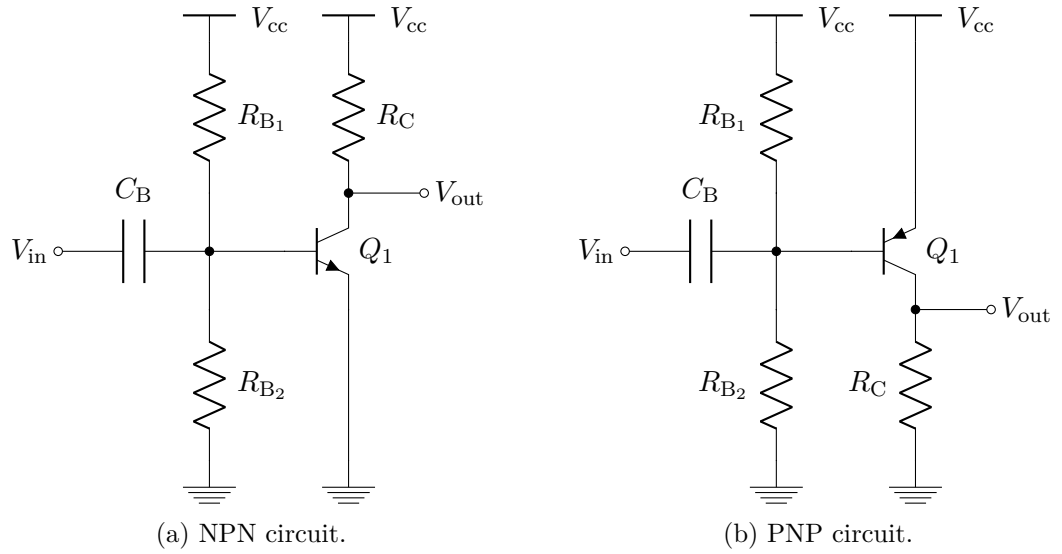


Figure 1.3: Common emitter bipolar transistor polarized by a resistive divider, with capacitive coupling at input.

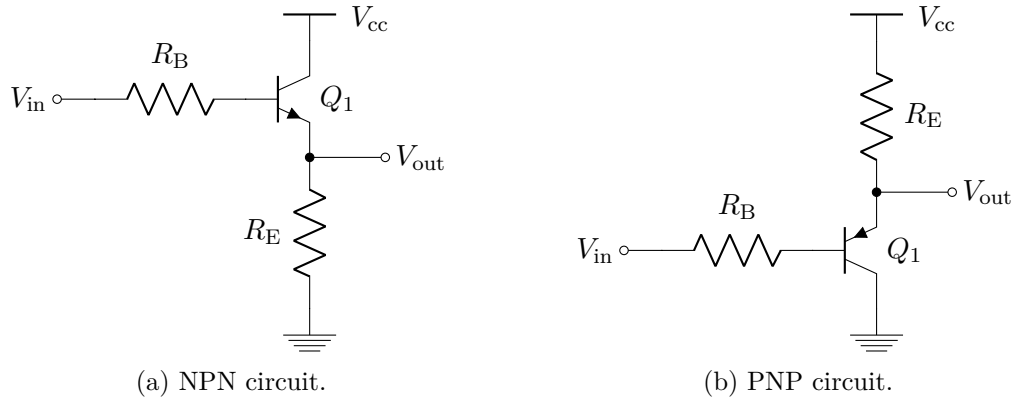


Figure 1.4: Common collector bipolar transistor, with direct coupling at input.



## 2 CMOS-based circuits

### 2.1 Common source

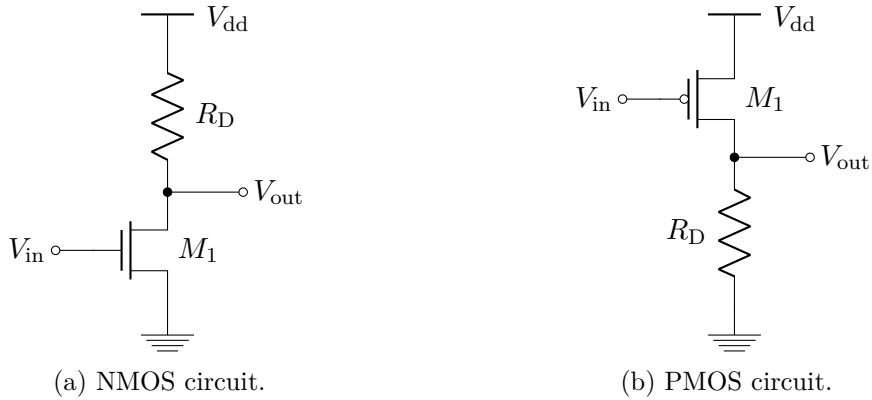


Figure 2.1: Common source CMOS transistor, with direct coupling at input.

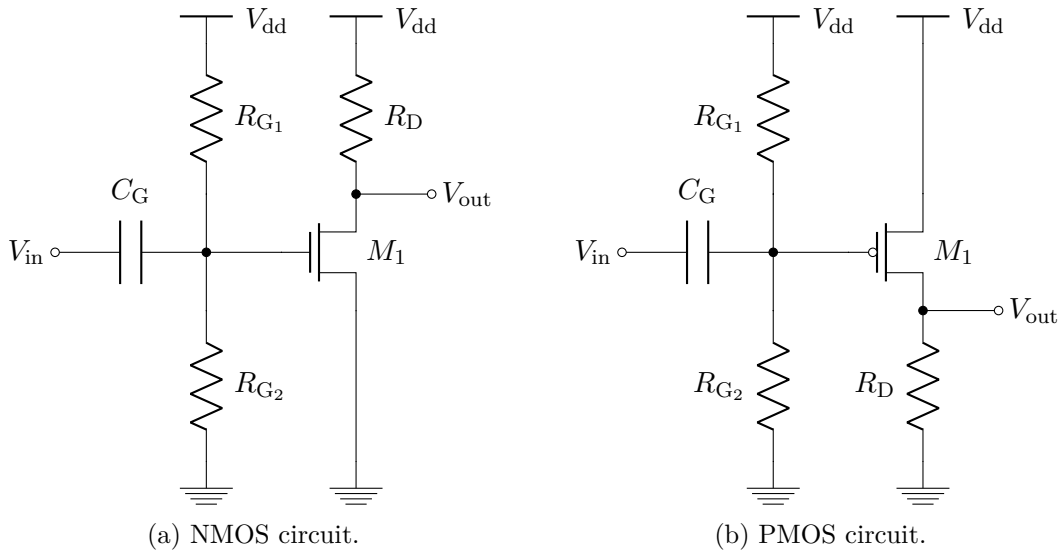
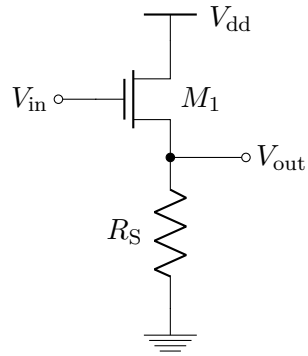
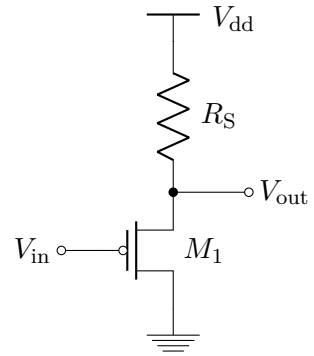


Figure 2.2: Common source CMOS transistor polarized by a resistive divider, with capacitive coupling at input.

## 2.2 Common drain



(a) NMOS circuit.



(b) PMOS circuit.

Figure 2.3: Common drain CMOS transistor, with direct coupling at input.

## 2.3 Common gate