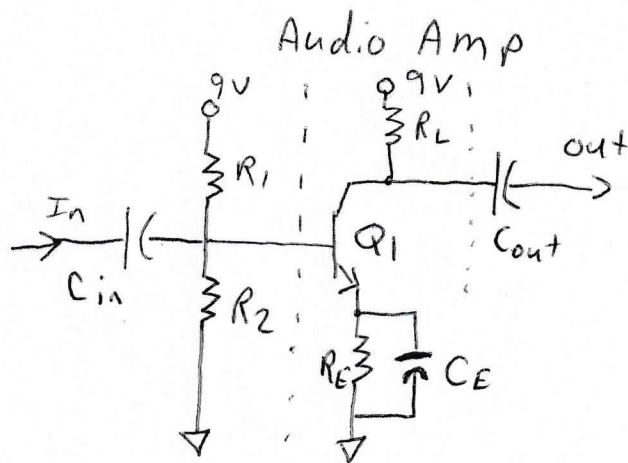
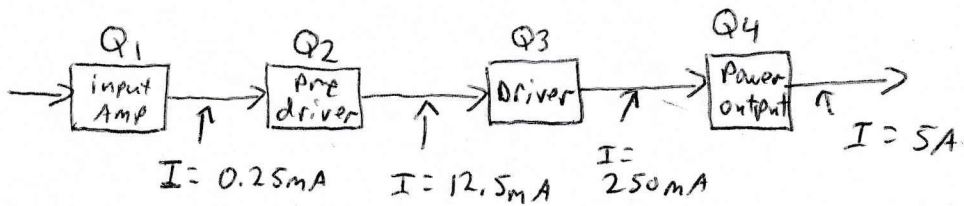


The amazing Semiconductor-Part 4 / Capacitors & AC signals ①

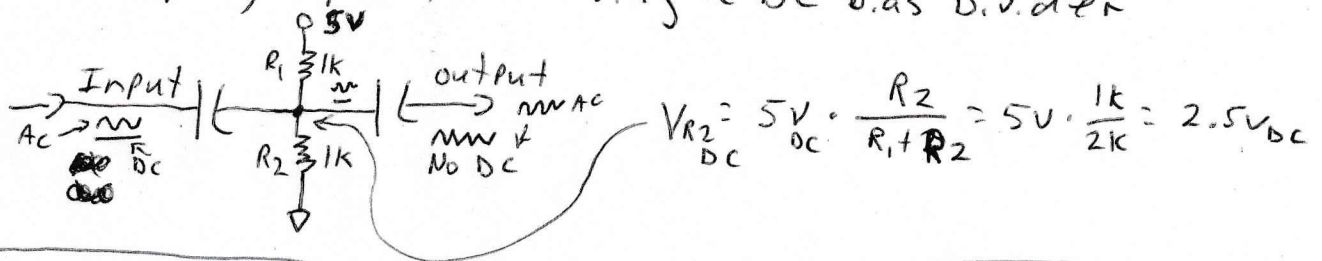


Common Emitter Amp
Class A



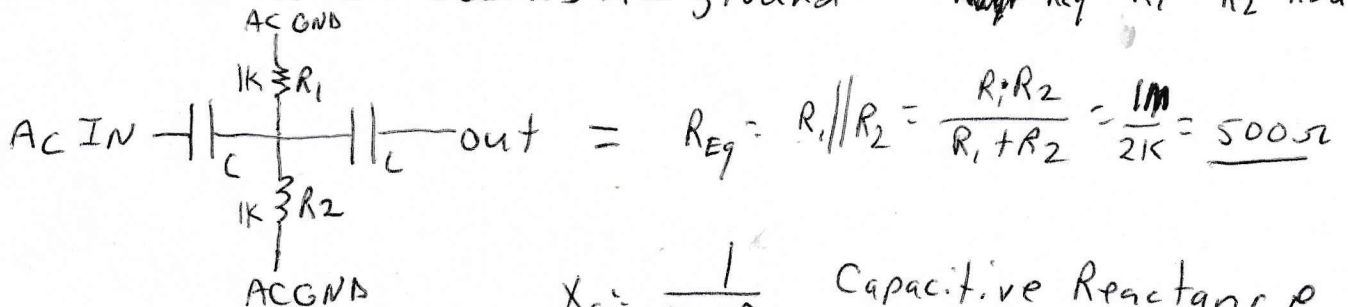
Capacitors pass AC But block DC.

AC coupling capacitor driving a DC bias Divider



In AC world 5V becomes AC ground

$$\frac{1}{R_{eq}} = \frac{1}{R_1} + \frac{1}{R_2} = R_{eq}$$



High pass filter

$$X_c = \frac{1}{2\pi fC}$$

Capacitive Reactance
f = frequency

$X_c \uparrow$ as $f \downarrow$

C = Capacitance

$X_c \downarrow$ as $f \uparrow$

LAB

