





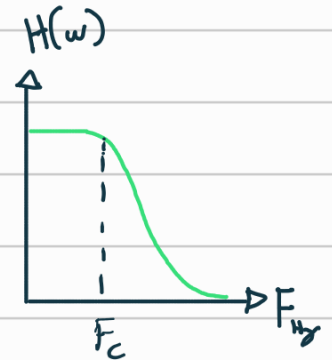
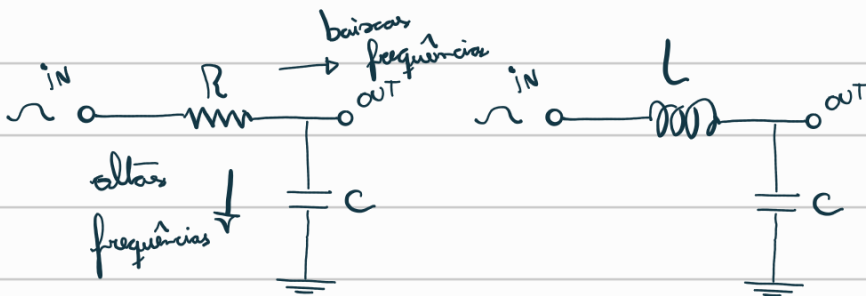


Experimento 01

▷ Capacitor  → Frequências altas: curto circuito  $i(t) = C \frac{dv(t)}{dt}$
 → Frequências baixas: circuito aberto 

▷ Indutor  → Frequências altas: circuito aberto  $v(t) = L \frac{di(t)}{dt}$
 → Frequências baixas: curto circuito 

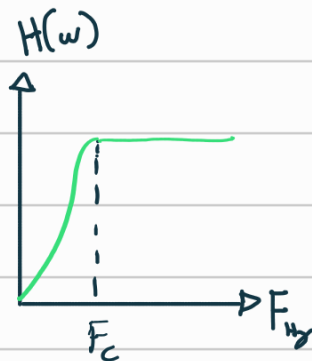
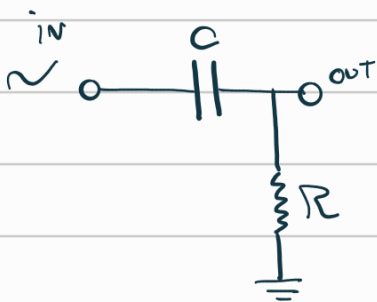
▷ Filtro Passa Baixa



$$F_c = \frac{1}{2\pi RC}$$

$$F_c = \frac{1}{2\pi\sqrt{LC}}$$

▷ Filtros Passa Alta



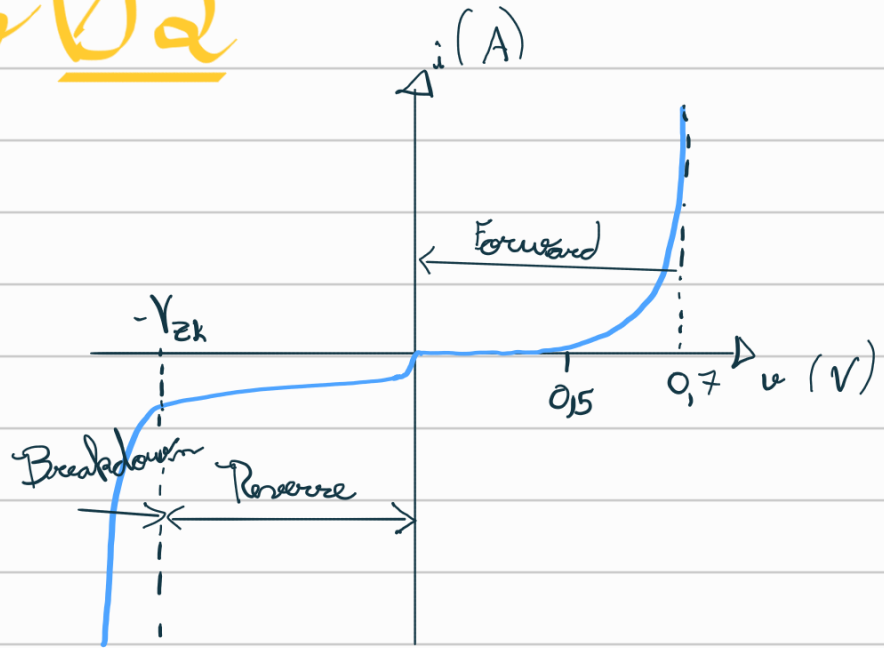
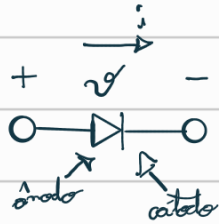
$$F_c = \frac{1}{2\pi RC}$$

$$R_1 // R_2 = \frac{6,8k \cdot 12k}{6,8k + 12k} = \frac{81,6k}{18,8k} = 4,34k\Omega$$

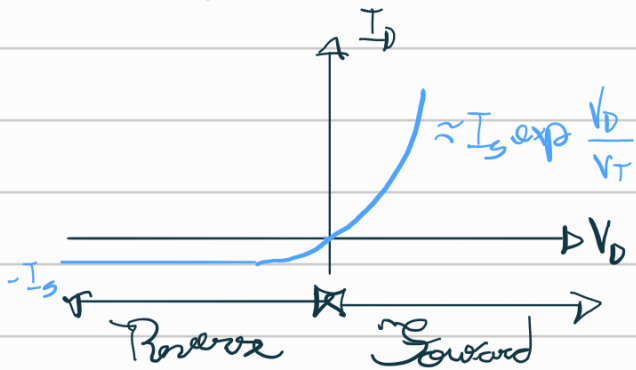
$$F_c = \frac{1}{2\pi \cdot 4,34k \cdot 0,02\mu} = \underline{\underline{1,83kHz}}$$

Experimento 02

▷ Diode



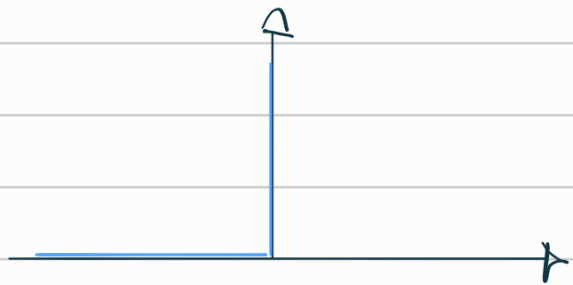
▷ Modelo exponencial



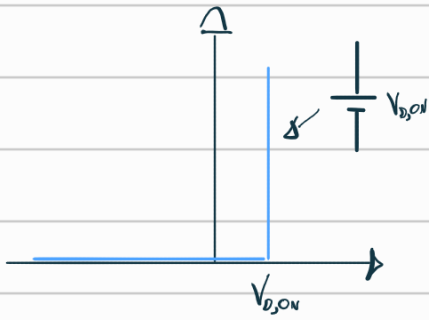
$$I_D = I_S \exp \frac{V_D}{V_T}$$

$$V_D = V_T \ln \frac{I_D}{I_S}$$

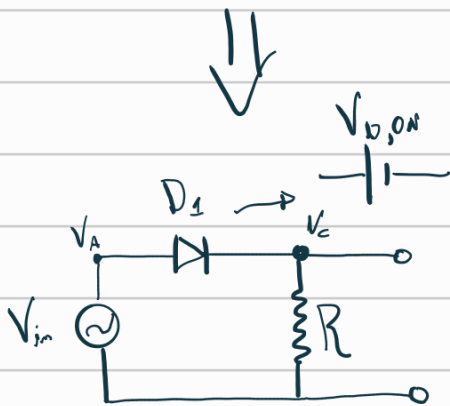
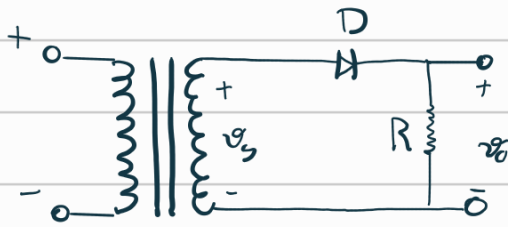
▷ Modelo Ideal



▷ Modelo de queda de tensão constante



▷ Retificador meia onda



$$V_A - V_C > V_{D,0}$$

