% Transfer Function

R1 = 68000;

R2 = 33000;

R3 = 6800;

L = 0.003;

C = 1\*10^-12;

w\_start = 1000000\*2\*pi; w\_stop = 10000000\*2\*pi;

w = w\_start:(w\_stop-w\_start)/2000:w\_stop;

s = 1j.\*w;

R = R3 + (R1\*R2/(R1+R2))

w0 = 1/sqrt(L\*C);

Q = w0.\*L./R;

Qn = w0\*L/R3;

K = R2/(R1+R2);

T = K.\*((s./w0).^2+(s./(Qn.\*w0))+1)./((s./w0).^2+(s./(Q.\*w0))+1);

Mag = 20.\*log10(abs(T)), grid

Phase = (180/pi)\*angle(T), grid

semilogx(w./(2\*pi),Mag)

figure

semilogx(w./(2\*pi),Phase)

