Fórmulas útiles

$$v_L = L \frac{di_L}{dt}$$
 $i_C = C \frac{dv_C}{dt}$ $\omega_0 = \frac{1}{\sqrt{LC}}$ RLC Serie $\alpha = \frac{R}{2L}$ RLC Paralelo $\alpha = \frac{1}{2RC}$

RLC Serie
$$\alpha = \frac{r}{2}$$

RLC Paralelo
$$\alpha = \frac{1}{2RC}$$

Ecuación característica
$$s^2+2\alpha s+\omega_0^2=0$$
 $\omega_r=\sqrt{\omega_0^2-\alpha^2}$ $f(t)=f_F+A_1e^{s_1t}+A_2e^{s_2t}$

$$\omega_r = \sqrt{\omega_0^2 - \alpha^2}$$

$$f(t) = f_F + A_1 e^{s_1 t} + A_2 e^{s_2 t}$$

$$f(t) = f_F + (A_1 + A_2 t)e^{-s_1 t}$$

$$f(t) = f_F + (A_1 \cos \omega_r t + A_2 \sin \omega_r t)e^{-\alpha t}$$