Useful information:

$$\lambda = \frac{2d\,n}{\mathbf{n}} \qquad i(t) = C\frac{dV(t)}{dt} \qquad n_i = \frac{c}{u_i} \qquad Z = \sqrt{R^2 + X^2}$$

$$\frac{I_R}{I_o} = \frac{(n_2 - n_1)^2}{(n_2 + n_1)^2} \qquad V_{out} = \left(\frac{1}{\sqrt{1 + (2\pi f\, CR)^2}}\right) V_{in} \qquad V_{out} = \left(\frac{2\pi f\, CR}{\sqrt{1 + (2\pi f\, CR)^2}}\right) V_{in}$$

$$\Delta f = \frac{1}{3\,\tau} \qquad X_c = \frac{1}{2\pi fC} \qquad V_{out} = V_{max}\, e^{-t/\tau} \qquad f_{mod} = \frac{2V_m}{\lambda}$$

$$D_l = F \times D_a \qquad \delta = 2x \qquad V(t) = L\frac{di(t)}{dt} \qquad f_o = \frac{1}{2\pi RC}$$

$$V_j = V_T\left[\frac{\sum_{j\neq i} R_j}{\sum_i R_i}\right] \qquad i_{noise,\,rms} = \sqrt{2\,q\,i_{dc}\,\Delta f} \qquad V_{out} = V_{max}\left(1 - e^{-t/\tau}\right)$$

$$P(t) = \sum_i k\cos(2\pi\nu_i t) \qquad D_a = \frac{n}{d} \qquad n\lambda = d\left[\sin(i) \pm \sin(r)\right]$$

$$V_{noise,\,rms} = \sqrt{4\,k_B\,T\,R\,\Delta f} \qquad V_{out} = V_{max}\left(e^{-t/\tau}\right) \qquad \bar{\nu}\,(cm^{-1}) = \frac{1}{\delta\,(cm)}$$