FÓRMULAS DE ELECTRICIDAD Y ELECTRÓNICA

$$R = \rho \frac{l}{s}$$

Rt = R0 · (1 + · t)

$$I = \frac{V}{R}$$

$$C(\mu F) = 8{,}84\ 10^{-8}\ K\ \frac{S(cm^2)}{d(cm)}$$

vc = V· (1 − e− t/R·C)

Tc = 5·R·C

vd = V· e− t/R·C

Td = 5·R·C

$$L(H) = 1{,}257\ 10^{-8}\ \frac{N^2\ S\,(cm^2)}{l\,(cm)}\ \mu$$

$$C = \frac{Q}{V}$$

$$I = \frac{Q}{t}$$

$$W_L = \frac{1}{2}\ L\ I^2$$

$$W_C = \frac{1}{2}\ C\ V^2$$

RT(serie) = R1 + R2 + R3 + ...

RT(paralelo) = $\dfrac{1}{\frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} + \ldots}$

CT(paralelo) = C1 + C2 + C3 + ...

CT(serie) = $\frac{1}{\frac{1}{C_1}+\frac{1}{C_2}+\frac{1}{C_3}+\ldots}$

P = v · I

(R1 øø R2) = $\frac{R_1 \ R_2}{R_1+R_2}$

(C1 y C2 en serie) = $\frac{C_1 \ C_2}{C_1+C_2}$

$X_C = \frac{1}{\omega \ C}$

XL = · L

= 2 ·f

Circuito R−L−C serie

$Z = \sqrt{R^2+(X_L-X_C)^2}$

Circuito R−L−C paralelo

$Z = \frac{1}{\sqrt{\frac{1}{R}^2 + \frac{1}{X_L}-\frac{1}{X_C}^2}}$