

Hukum Ohm

$$i(t) = \frac{V_c(t)}{R} = -C \underbrace{\frac{dV_c(t)}{dt}}_{\text{perubahan tegangan}}$$

Pers. differensial biasa.
(ODE)

$$RC \frac{dV_c(t)}{dt} + V_c(t) = 0, \quad V_c(0) = 10 \text{ V}$$

$$RC = \tau (\text{tau})$$

= time constant (konst. waktu) Contoh

D42113ABG
D42113XYZ

$R = \text{AB}, C \text{ K}\Omega$
 $C = \text{X}, Y, Z \text{ }\mu\text{F}$

01,6 K Ω
02,7 μF

$$\tau = RC = 1,6 \times 10^3 \times 2,7 \times 10^{-6} = 0,00432$$

[Ohm] $\times$ [Farad] = [second]