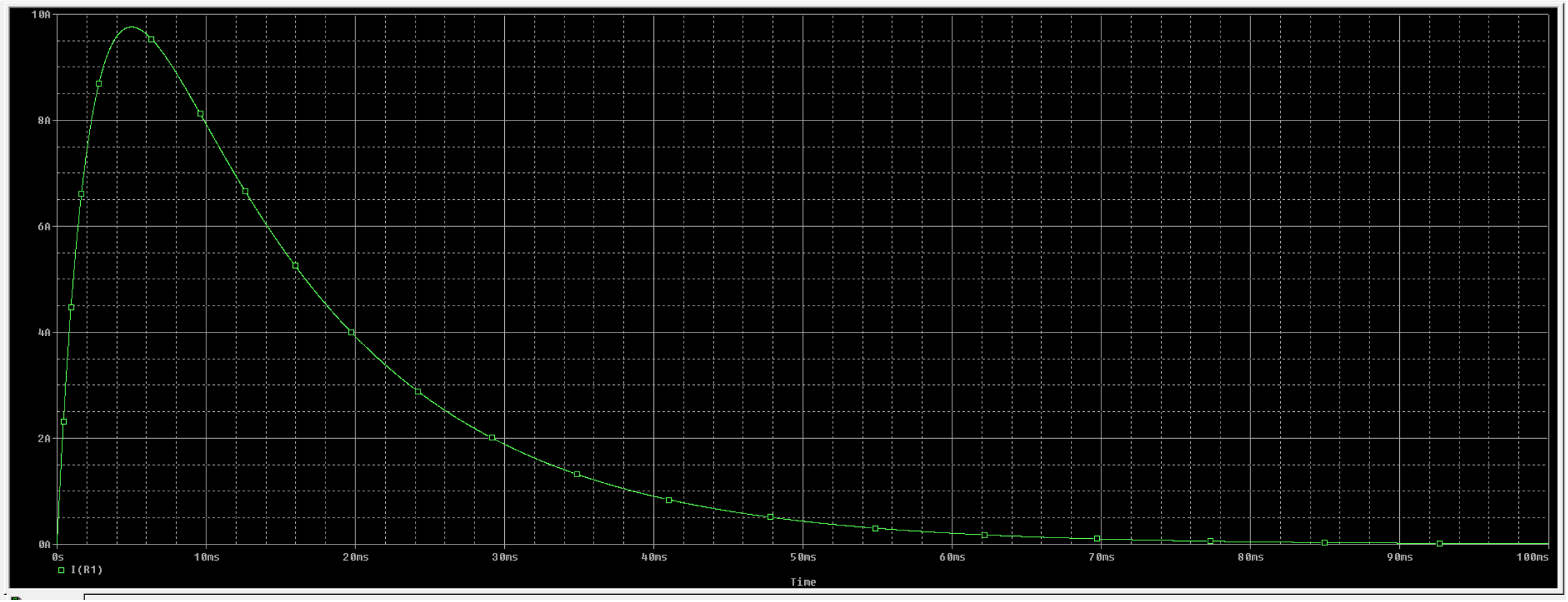
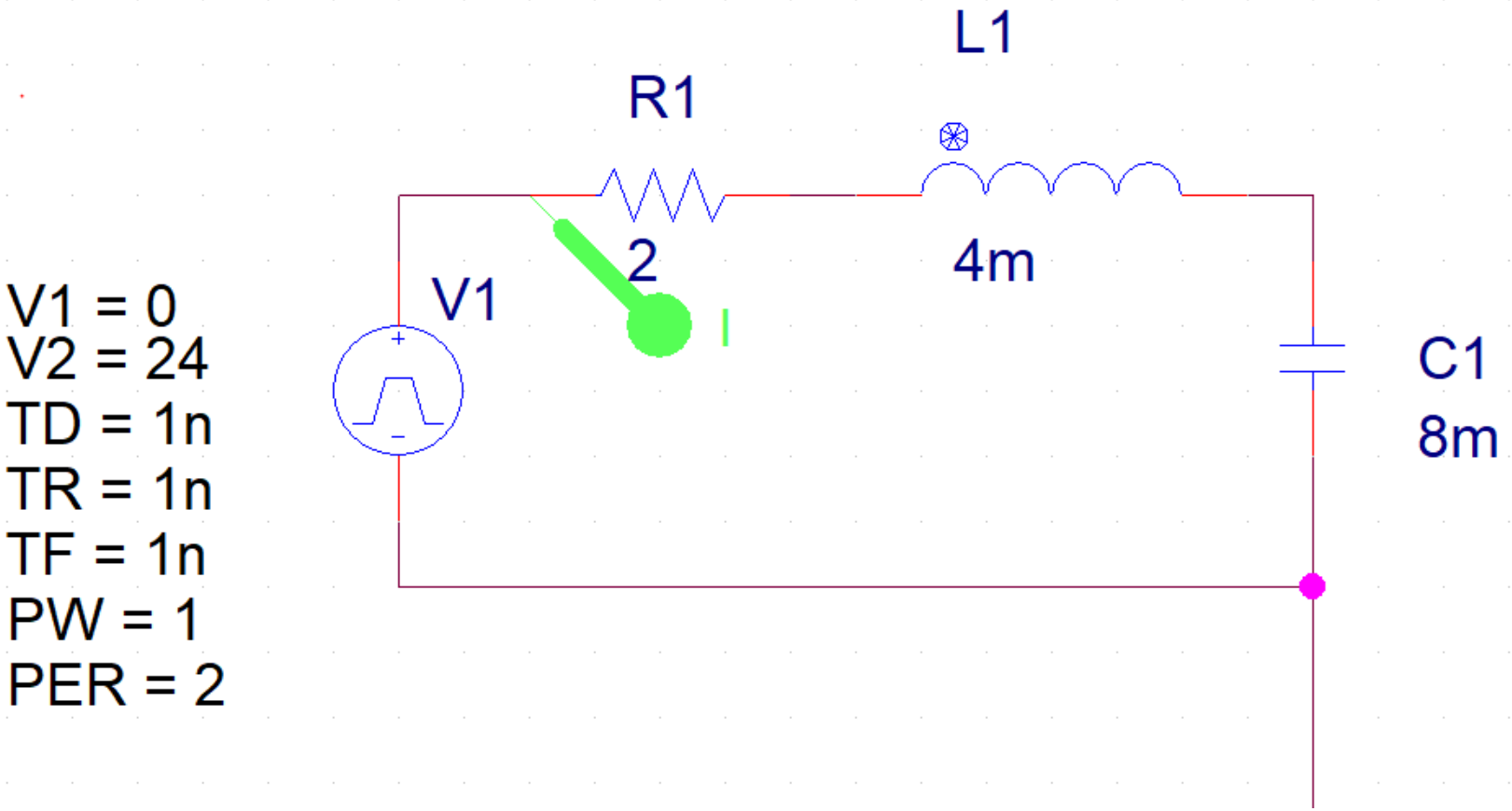
Modeling and implementation of actuator parameters

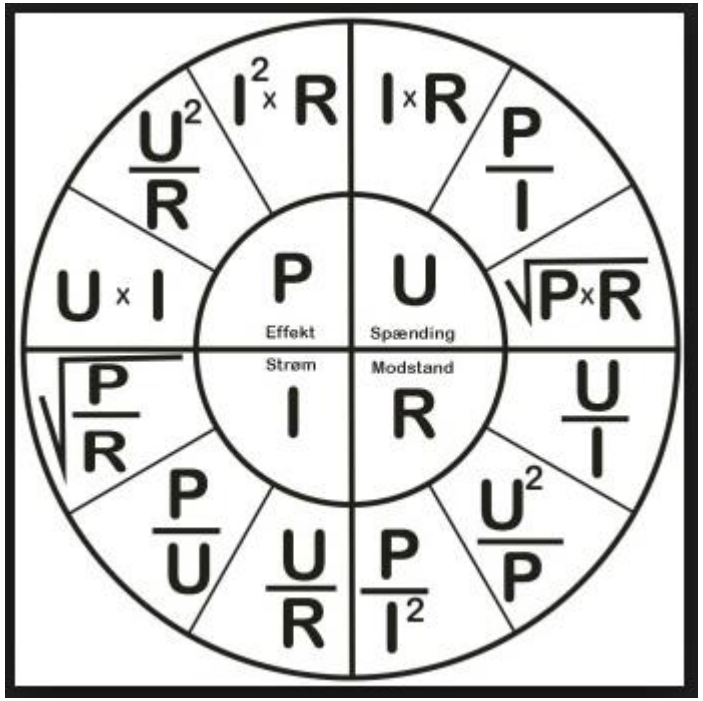
What is behind this curve ?



Equalient motor model



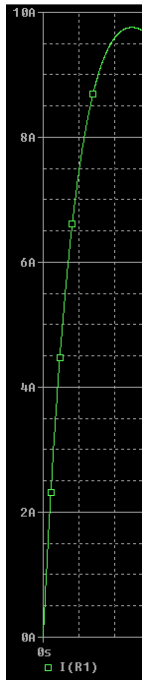
Ohm`s extended law



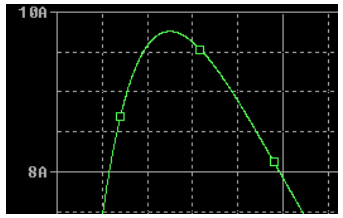
$$I = \frac{dV}{dt} * C$$

$$V = \frac{dI}{dt} * L$$

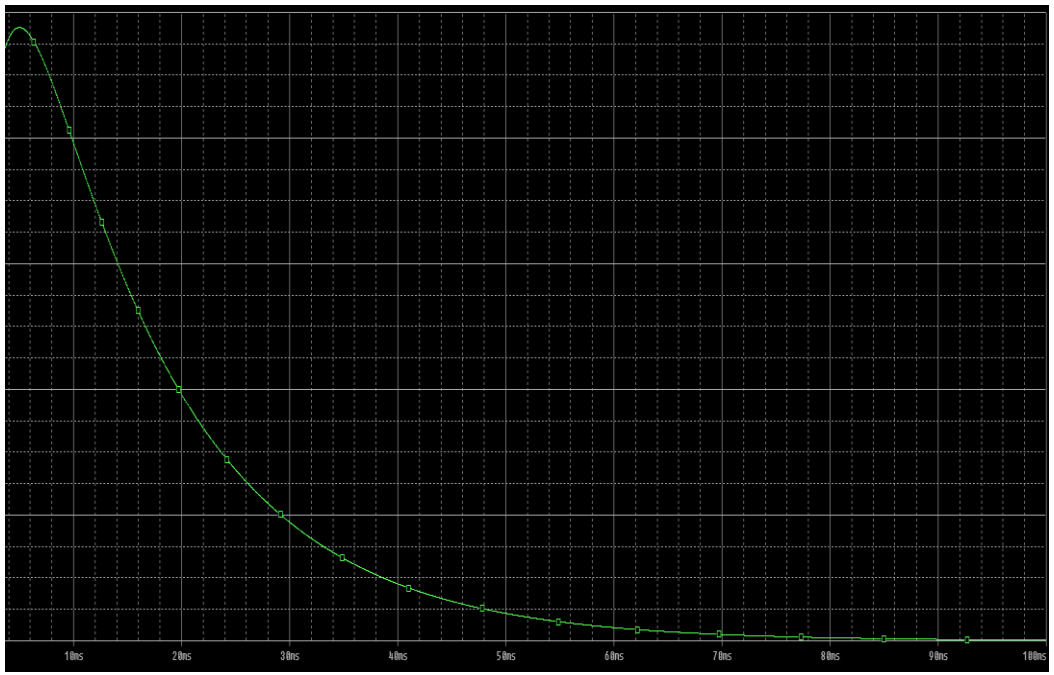
What is going on during time ?



L and R

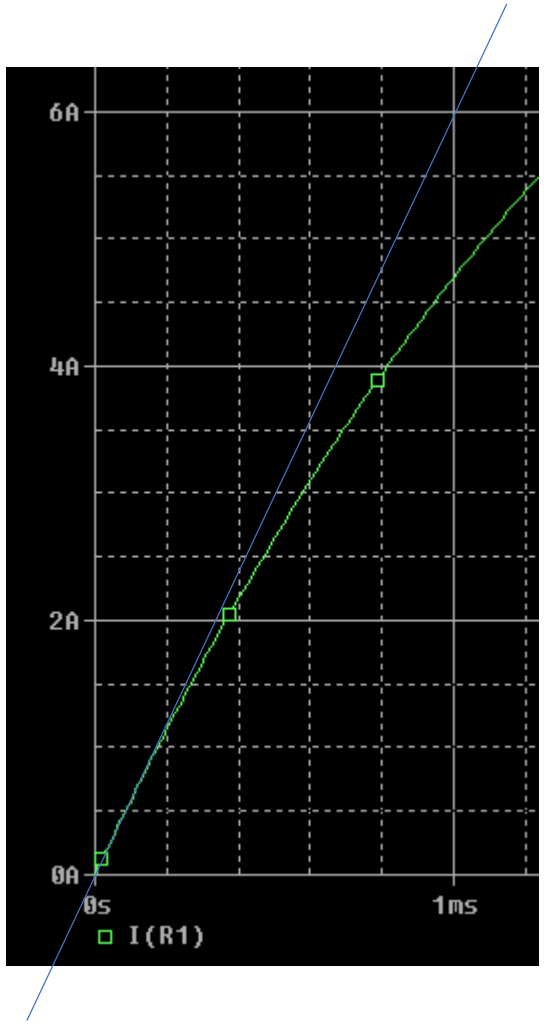


Most R



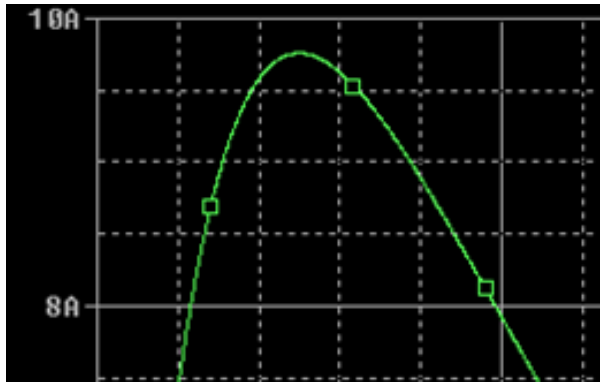
C and R

What is going on during time ?



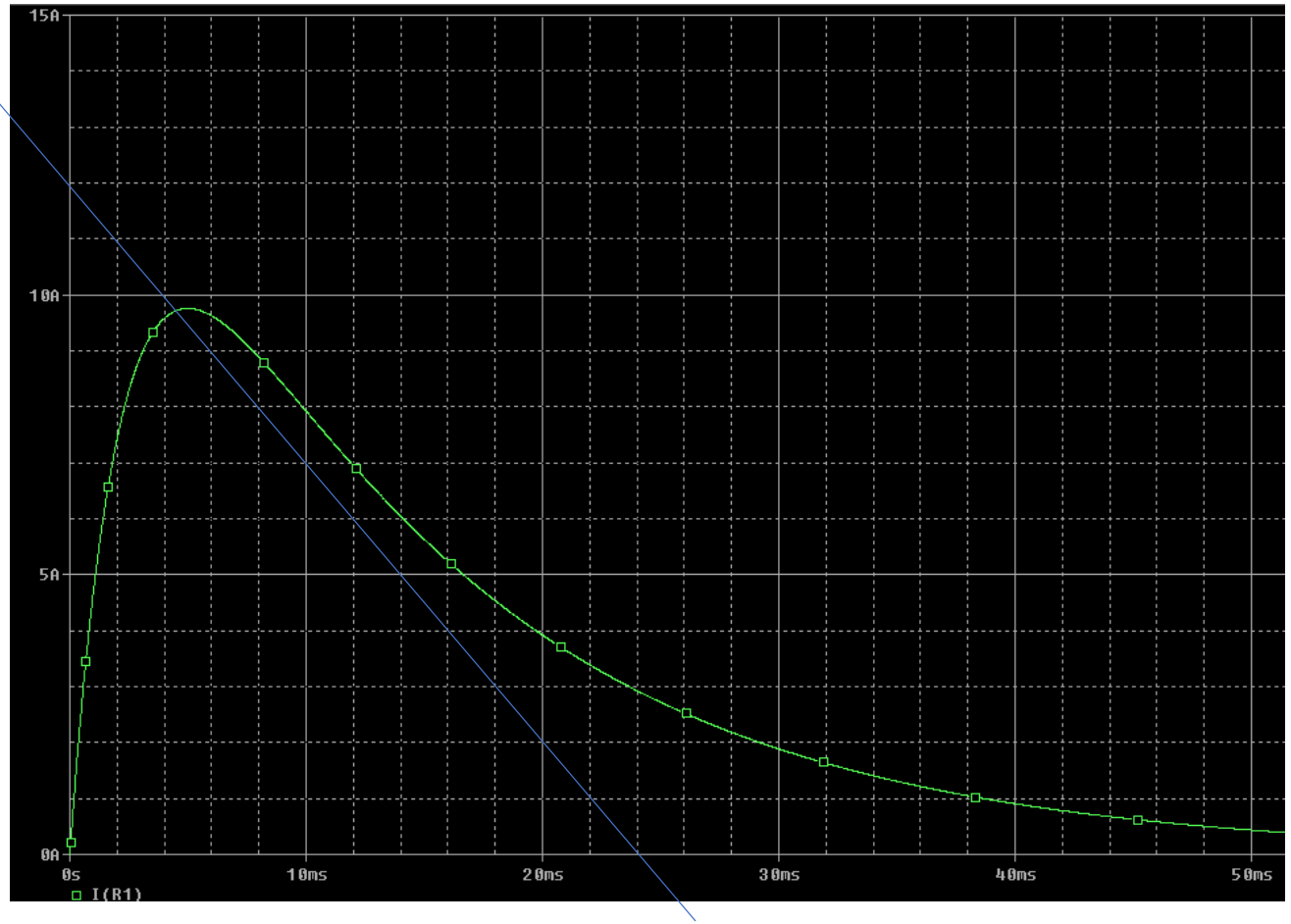
$$V = \frac{dI}{dt} * L$$

What is going on during time ?



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

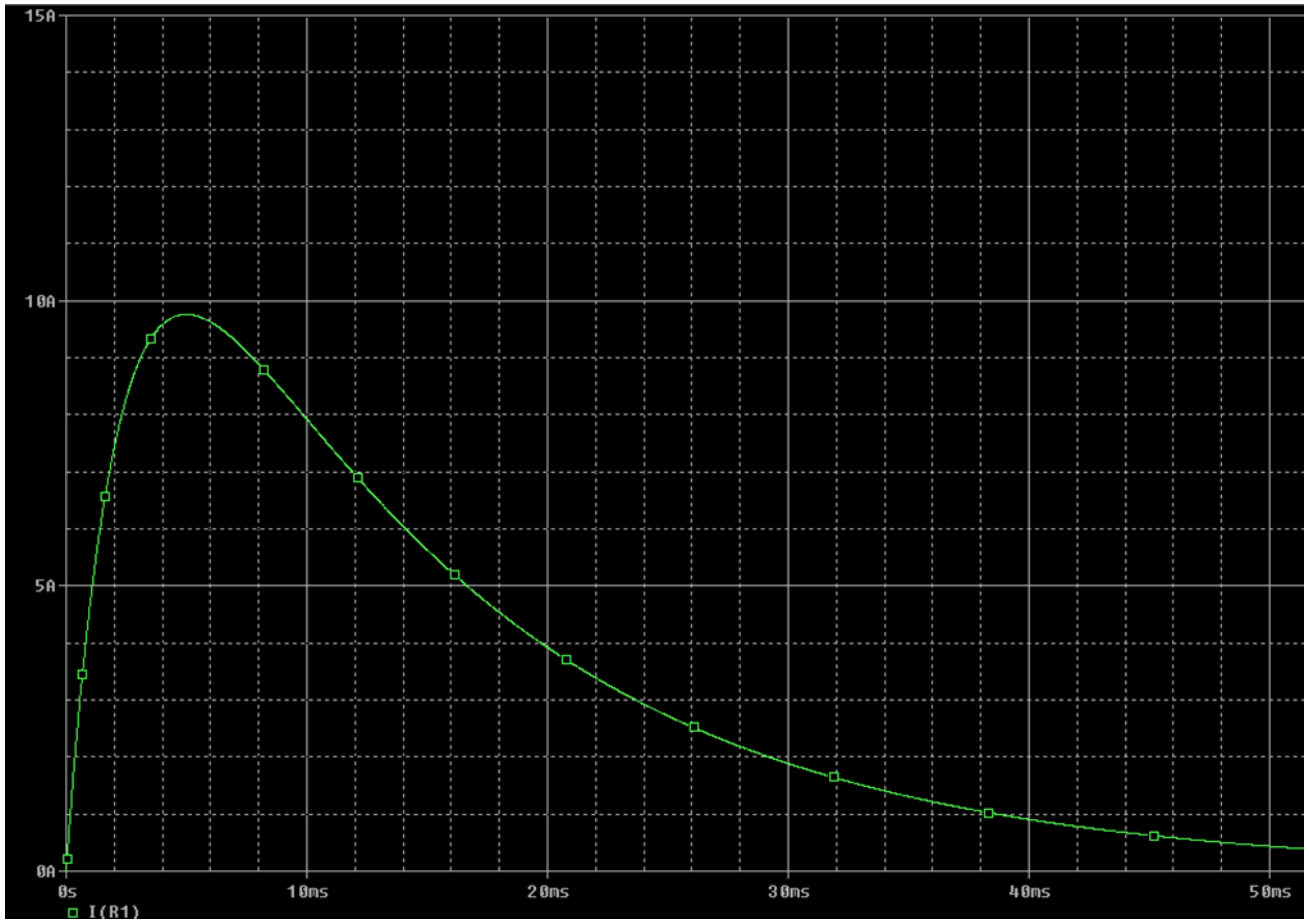
What is going on during time ?



Here it becoms more difficult

It is not possible to fit in a simple way

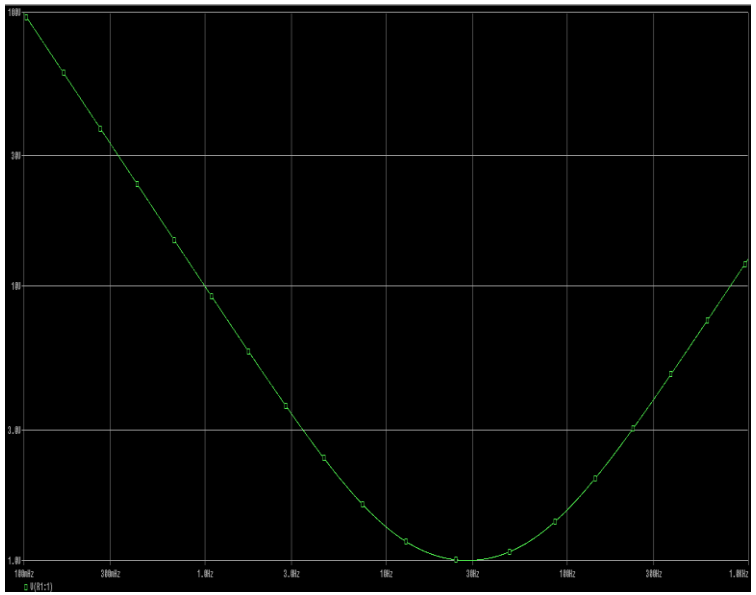
What is going on during time ?



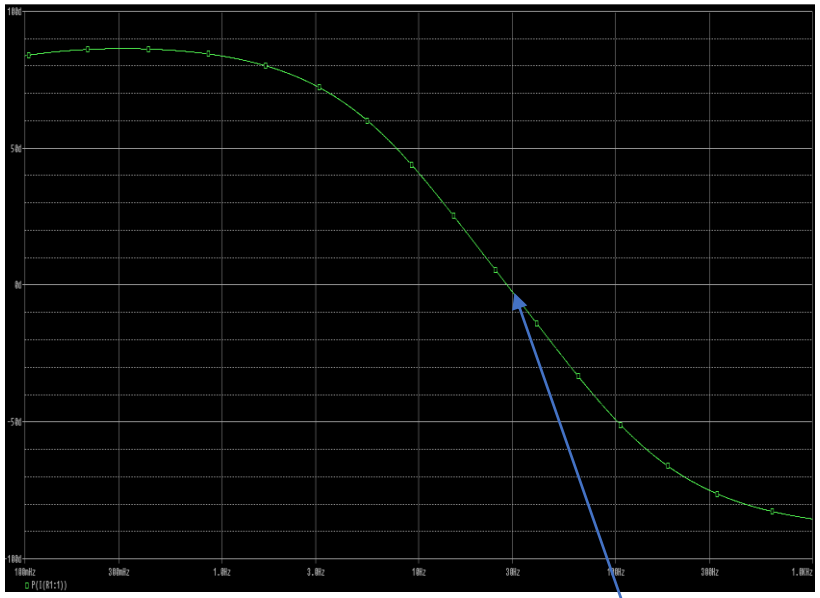
Matematicaly

$$I(t) = V * 0.707 * (e^{-73*t} - e^{-427*t})$$

Frequency domain



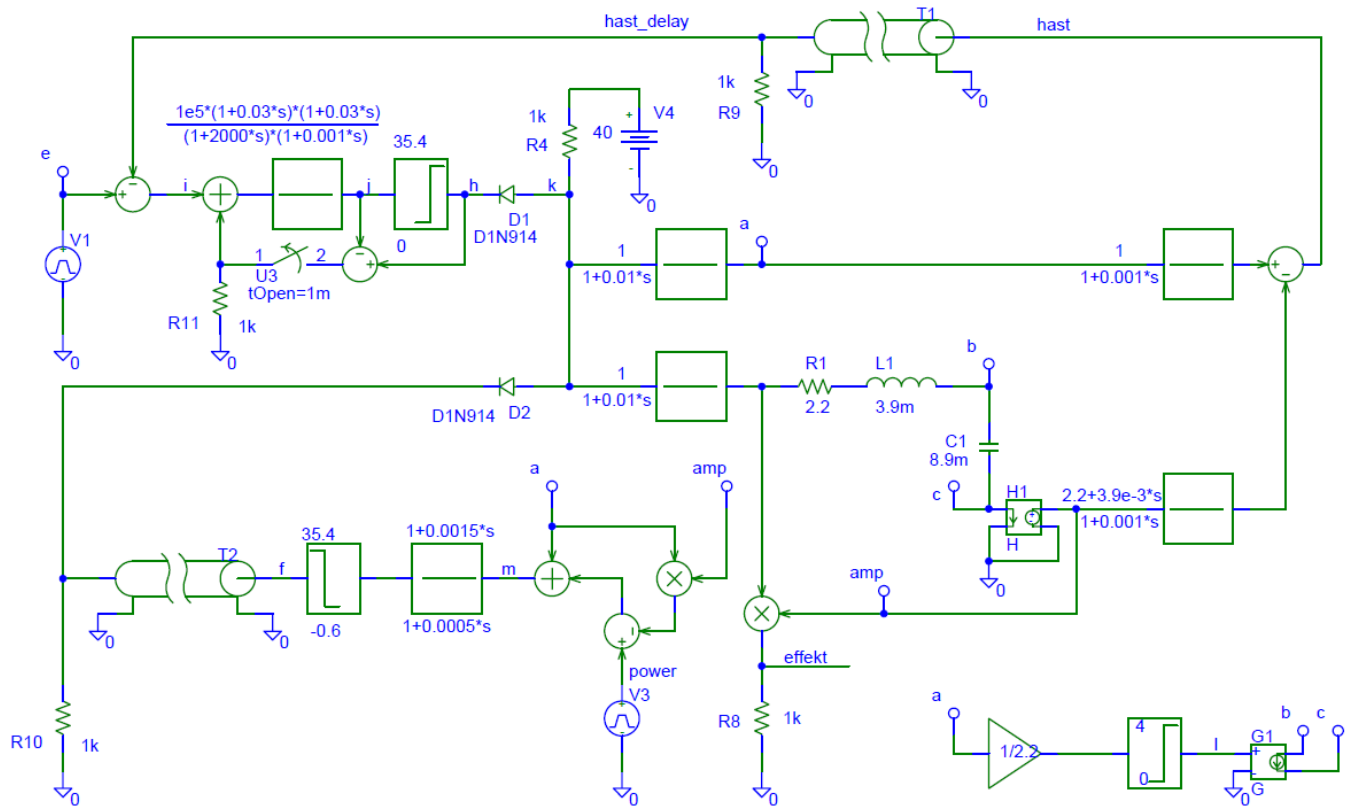
Impedance



Phase

30 Hz.

Practical example



And now converted to Z domain