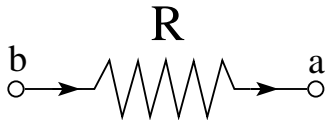
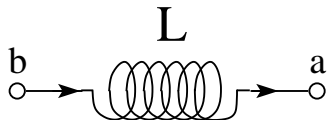



# Response of Device to Electric Current



device	symbol	voltage
resistor		$V_{ab} = RI$
inductor		$V_{ab} = L \frac{dI}{dt}$
capacitor		$V_{ab} = \frac{1}{C} Q \quad \frac{dQ}{dt} = I$

Note that the response of each device to a current  $I$  is a voltage  $V_{ab} \equiv V_b - V_a$ .

- resistor: response proportional to current itself
- inductor: response proportional to derivative of current
- capacitor: response proportional to integral of current