Moore’s law is an emperic rule according to which number of transistors in a dense integrated circuit doubles about every 12 months

But more transistor density leads to increase in power consumption.
That leads to release of more heat. Without improvements in cooling systems this will result in melting of silicon.
Another way of reducing power consumption thus heat generation is to reduce Voltage swing between high and low, but there is a limit to that due to noise and transistor threshold.
Also reducing transistor size results in increase of leakage power
Another limiting factor is a latency between memory and processor