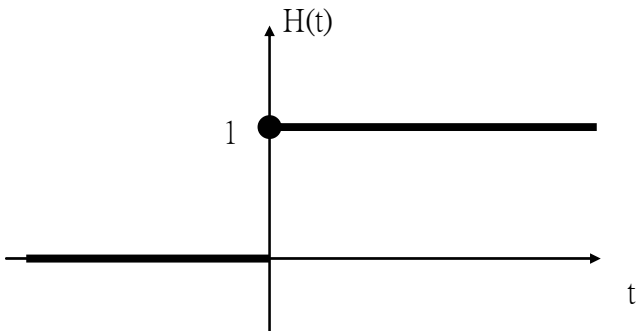
Heaviside Unit Step Function

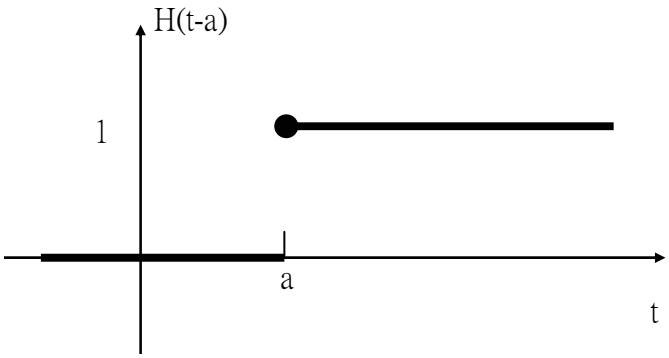
The **Heaviside Unit Step Function** is defined by

$$H(t)=\begin{cases}0 & t<0\\ 1 & t\geq 0\end{cases} \quad if$$



A **Heaviside Unit Step Function** is defined by

$$H(t-a)=\begin{cases}0 & t<a\\ 1 & t\geq a\end{cases} \quad if$$



We can use $H(t-a)$ to turn a given function g off until time $t=a$, at which time it is switched on.

$$H(t-a)g(t)=\begin{cases}0 & t<a\\ g(t) & t\geq a\end{cases} \quad if$$

A pulse is a function of the form
$H(t-a)-H(t-b)$ in which $a>b$