$$f(t)$$

$$\uparrow \delta(t)$$

$$\downarrow \delta(t)$$

$$\mathcal{L}\left\{\delta(t-t_0)\right\} = \int_0^\infty e^{-st} \delta(t-t_0) dt = e^{-st_0}$$

$$\delta(t-t_0) \Leftrightarrow e^{-st_0}$$

$$\delta(t) \Leftrightarrow 1$$