$$V_B = V_{DD}$$

$$\frac{\mathrm{d}V_B}{\mathrm{d}t} = \frac{I_{dsp1} - I_{dsn1}}{C_{out}}$$

$$\frac{\mathrm{d}V_B}{\mathrm{d}t} = \frac{-I_{dsn1}}{C_{out}}$$