

$$\begin{aligned}
H(s) &= \frac{-1}{C_f \cdot R_{f1}} \frac{s}{S^2 + \frac{2}{C_f \cdot R_{f5}} s + \frac{R_{f1} + R_{f2}}{R_{f1} \cdot R_{f2}} \cdot \frac{1}{C_f \cdot R_{f5}}} \\
R_{f1} &= \frac{-Q}{C_f \cdot w_0 \cdot k} \\
R_{f5} &= \frac{2Q}{C_f \cdot w_0} \\
R_{f2} &= \frac{Q}{C_f \cdot w_0 \cdot (2 \cdot Q^2 - k)} \\
V_c(t) &= V_f + (V_0 - V_f) \cdot e^{-\frac{t}{\tau}}
\end{aligned}$$