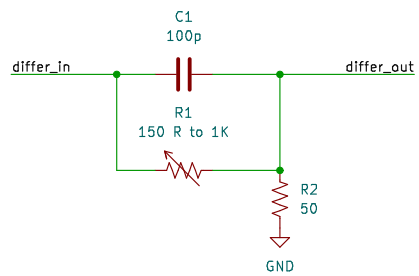


An upstream pole with time constant τ_u
gets cancelled if $\tau_u = \tau_{pz} = R_1 C_1$

The remaining output pole is at $\tau_o = R_1 C_1 \parallel R_2 C_2$
If $R_1 C_1 \gg R_2 C_2$, then $\tau_o \cong R_2 C_2$

Make τ_{pz} adjustable from 15 ns to 100 ns
and τ_o nominally 5 ns,
but would be as low as 3.75 ns for $\tau_{pz} = 15$ ns.



HugonLabs

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File: differentiator_trimmable.kicad_sch

Title: Differentiator Trimmable

Size: USLetter Date: 2022-03-06

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