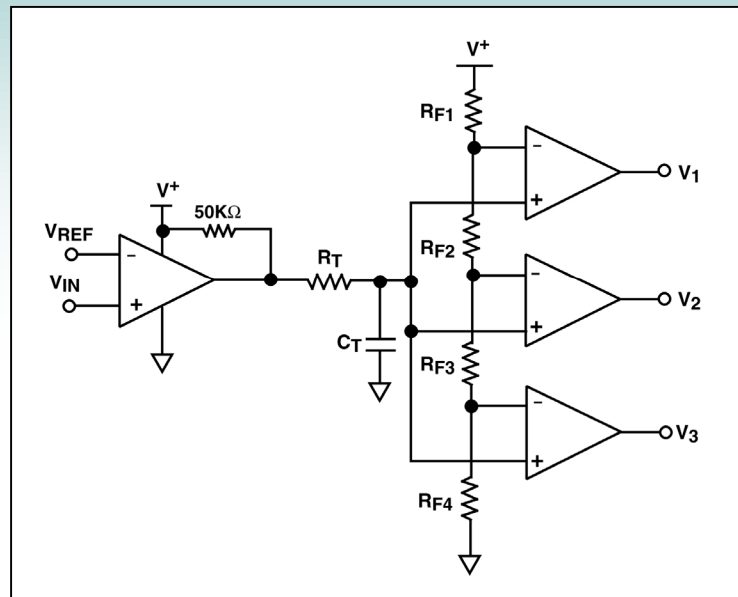




Time Delay Generator



Description

This is a basic time delay generator using voltage comparators. This example uses a quad voltage comparator. The first input stage produces an RC time delay. In this example, this time delay is determined by $R=50K+R_T$ and $C=C_T$. When the voltage of this RC network charges past threshold voltages set by resistor network R_{F1} , R_{F2} , R_{F3} , R_{F4} , each of the voltage comparator is triggered on in a sequence, depending on the respective voltage set at the negative input terminals of each voltage comparator by the R_F resistor values. This time delay generator produces outputs V_1 , V_2 and V_3 that has a fixed relative time delay to each other as they are triggered by the same input voltage stage. Time delay of V_2 always exceeds time delay of V_3 because its reference voltage at its negative input terminal is set by the addition of resistor R_{F3} . Likewise, time delay of V_1 always exceed that of V_2 and V_3 because of addition of R_{F2} to its reference threshold setting.

Recommended Components

ALD4302

For ALD4301 and ALD4303 (micropower) open drain versions, add pull-up resistors at the outputs

Other Related Circuit Ideas