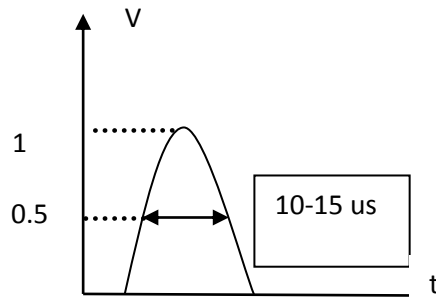


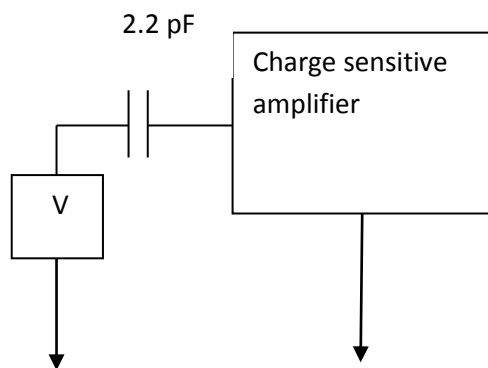
Some information about the radon detector system.

1) Preamplifier, use the schematic in figure 4 in “charge.pdf”, the op amplifier could be an AD817 or similar, the op amplifier should have $\pm 5V$ power-supply

2) Capacitance's of the shaping filter should be ~ 500 pF, the shaping time of the pulse in the range of 10 to 15 μs . The shaping time can be measured/simulated by looking at output of the shaping amplifier.



The gain of the op amplifier is adjusted so a signal feed to the input of the charge sensitive amplifier corresponding to a particle of 5MeV gives an output of 1 Volt on the shaping amplifier. A 100mV square signal and a 2.2 pF capacitor give the right input on the charge sensitive amplifier.



Use AD817 for the preamplifier, OPA604 for the shaping amplifier and the CA3140 for the peakdetector.

The MAX1044 Ic is used for converting $+5V$ to $-5V$.

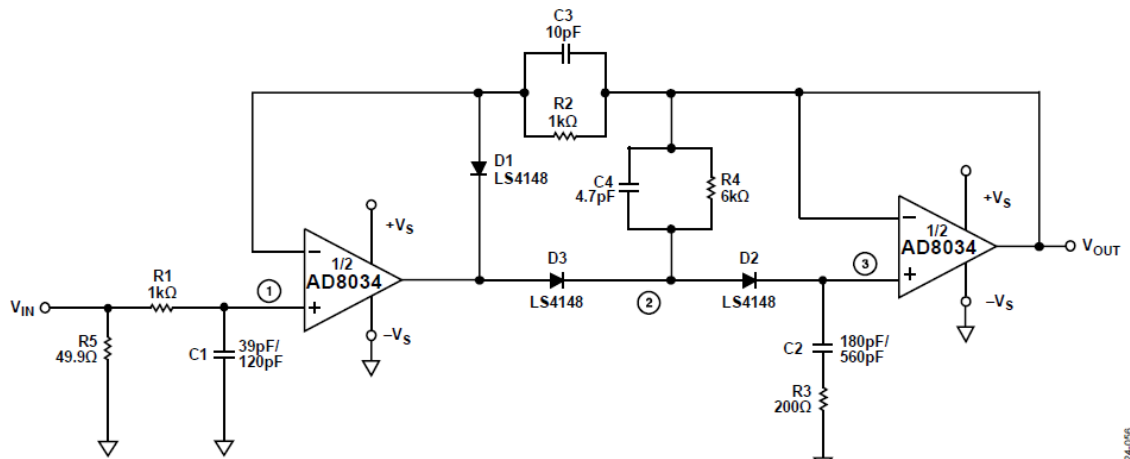


Figure 55. High Speed, Unity Gain Peak Detector Using AD8034

Remove: $R5$, $R1$, $C1$.

Use CA3140 as OP, place a resetting element in parallel with $C2$ and $R3$.