

Design a broadband circuit that interfaces a photo detector (as shown below) to a 50Ω load. The detector provides a short circuit current on the order of $100\mu\text{A}$; the desired voltage swing across the load is on the order of 100mV .

Available components: transistors, resistors, capacitors and independent voltage and current sources for biasing (no ideal op-amps). Provide a first-order expression for the bandwidth of your circuit.

