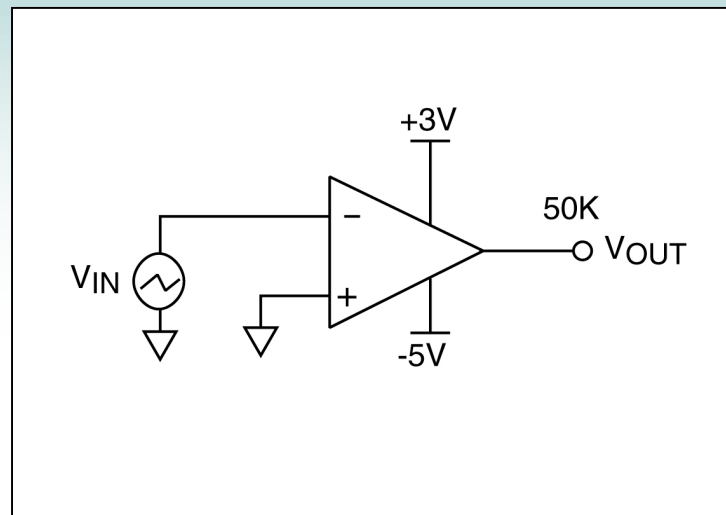




Zero Crossing Detector



Description

This circuit is a zero crossing detector, which produces an output state change whenever the input crosses the reference input. In this case the reference input is connected to ground. The output of the comparator can easily drive multiple outputs, which can include, for example, a relay, a control gate and a LED indicator. Note that this circuit works with either open-drain or push-pull types of comparator output, depending upon the load(s) to be driven. The load, in many cases, can also act as a pull-up device, so that a pull-up resistor is not required. Alternatively, push-pull outputs can actively pull-up the output to shutdown the load. In either case an output resistor and its associated power consumption are not required.

Recommended Components

- ½ ALD2301 or ½ ALD2303 for open-drain outputs
- ½ ALD2302 for push-pull outputs
- ½ ALD2321 for high precision applications

Other Related Circuit Ideas

- Schematic no. cd_23002.0 Dual Limit Window Comparator
- Schematic no. cd_23003.0 Dual Limit Photo-Detector Monitor
- Schematic no. cd_23005.0 Multiple Relay Drive