



## **Voltage Comparator with Complementary Outputs**

### **Description**

This circuit utilizes a dual operational amplifier with high slew rate to act as voltage comparators with complementary outputs Q and Q<sub>BAR</sub>. Alternatively, a dual voltage comparator can also be used. The input reference can be any reference signal generated externally that is within input voltage limits. Both the outputs Q and Q<sub>BAR</sub> change state whenever the input signal V<sub>IN</sub> crosses V<sub>REF</sub> voltage levels. A high-precision voltage comparator function can be implemented by selecting a low offset voltage rail-to-rail dual operational amplifier. When a dual operational amplifier or dual voltage comparator is used, when both comparator functions are within the same IC package, the outputs Q and Q<sub>BAR</sub> have better timing and temperature tracking to each other. In other words, the transition whenever Q changes state would track Q<sub>BAR</sub> changing state in the opposite direction.

For full schematic diagram and notes, please register and login at [aldinc.com](http://aldinc.com)