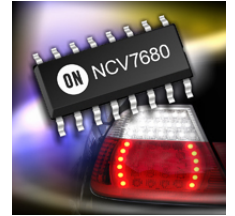


NCV7680

LED Driver for Automotive LED Rear Combination Lamps



Product Overview

For complete documentation, see the data sheet.

The NCV7680 consists of eight linear programmable constant current sources. The part is designed for use in the regulation and control of LED based Rear Combination Lamps for automotive applications. System design with the NCV7680 allows for two brightness levels, one for stop and one for tail illumination, or optional PWM control can also be implemented. Discrete LED brightness levels are easily programmed (stop current value, tail duty cycle value) optional external ballast FET allows for power distribution on designs requiring high currents. Set back power limit reduces the drive current during overvoltage conditions. This is most useful for low current applications when no external FET is used.

Features

- Constant Current Outputs for LED String Drive
 - LED Drive Current up to 75mA per Channel
 - Open LED String Diagnostic with Open-Drain Output
 - Slew Rate Control
 - Low Dropout Operation
 - External Modulation Capable
 - On-chip 1 kHz Tail PWM Dimming
 - Stop Current Set Point programmability
 - Tail Dimming Set Point programmability
 - Overvoltage Set Back Power Limitation
- For more features, see the data sheet

Benefits

- LED devices are best controlled with current drive due to their exponential voltage characteristics
- Sufficient drive for most popular low current LED devices
- System functionality back to the microprocessor
- Eliminates EMI concerns
- Maintains functionality during drops in automotive battery voltage
- Flexible for many system operation setups
- Simplifies system design.
- Easy programmability with one resistor
- Easy programmability with one resistor
- Keeps IC temperature lower at extended voltage range.

Applications

- Automotive Rear Combination Lamps
- Daytime Running Lights
- Fog Lights
- Center High Mounted Stop Lamps
- Turn Signal and Other Externally Modulated Applications

End Products

- Lighting Module

Application Diagram

