



## **A6260**

- A high-brightness constant-current LED driver IC
- Is designed to operate over the typical automotive voltage and temperature ranges
- An ,enable' input is used to activate the LED drive and can also be driven with a pulse-width-modulated (PWM) input for dimming the LED brightness

## **Automotive-grade high-brightness constant-current LED driver IC**

The new A6260 from Allegro MicroSystems Europe is a high-brightness constant-current LED driver IC which is designed to operate over the typical automotive voltage and temperature ranges.

The input voltage range of the A6260 is specified down to 6 V, and the device will operate at up to 40 V. The linear constant-current output can be adjusted to deliver up to 350 mA in a typical application.

An ,enable' input is used to activate the LED drive and can also be driven with a pulse-width-modulated (PWM) input for dimming the LED brightness. To help minimise electromagnetic interference, the slew rate of the output current is controlled during switching. In addition, the ,enable' pin will cause the IC to enter into a low quiescent sleep mode if held low.

Several automotive-grade protection features are included. The IC is fully protected against short circuits to ground or battery, and a thermal shutdown circuit disables the IC if the junction temperature reaches +165°C. In addition, integrated reverse battery protection eliminates the need for an external reverse battery diode.

The A6260 also includes a temperature monitor circuit which monitors the chip temperature and causes the output current to decrease with increasing temperature in a foldback fashion. The temperature threshold at which the foldback begins can be adjusted by choosing an appropriate resistor on the THTH (thermal threshold) input pin. This feature will allow the LED driver to dynamically protect itself during any input overvoltage transients such as load dump or double battery. If the IC is mounted on an appropriate substrate and located near the LED, this feature can also be used to help protect the LED against over-temperature conditions.

Typical applications for the A6260 include automotive interior lighting such as map lights and dome lights and exterior lighting such as rear indicator and brake lights and rear combination lighting. Industrial and consumer high-intensity LED lighting applications will also benefit from the device's feature set.

The A6260 LED driver is available in an 8-lead thermally enhanced SOIC package. The device is lead (Pb) free with 100% matt tin leadframe plating.