LC1920

REV1.0-Revised JUL 2008

WIDE RANGE, LINEAR LED DRIVER

DESCRIPTION

The LEADCHIP LC1920 is a high-voltage adjustable current source with accurate temperature compensation. The device is designed to provide a constant current source determined by an external sense resistor R_{sense}. The current is adjustable from 10mA to 20mA with less than 10% error while input changes from 5V to 90V. With an external resistor (R1 in Figure 1) between VA and IS pin, the heat in the IC can be significantly reduced while keeping the summation of IC and R1 current to be constant. This is extremely useful in the area that power lines are not very stable. A typical application for the LC1920 is to drive LEDs with a constant current varies from 10-20mA. They can also be used in parallel to provide higher current according to the bias. This device is available in TO-92 package.

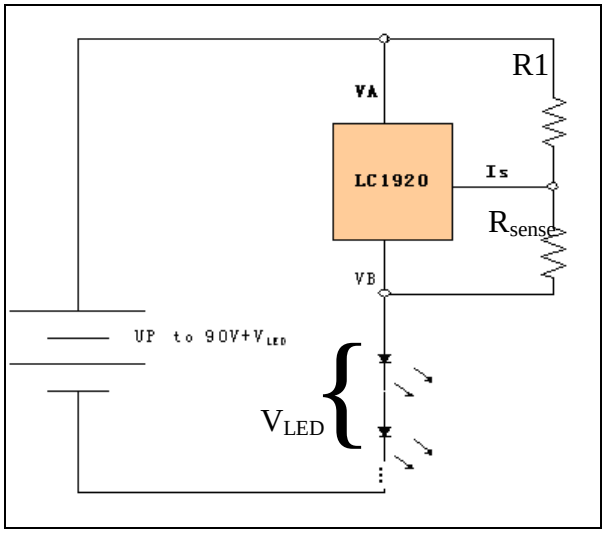
FEATURES

- Wide operation range: from 5V to 90V(V_{A-B})
- TO-92 packages available
- I_{LED} can be programmed from 10mA to 20mA via changing R_{sense}
- Power dissipation can be adjusted
- Easy to use, only 3 pins and very little external components are needed
- Can be paralleled for higher current
- Temperature compensated

APPLICATIONS

- Industrial lamp indicators
- LED driver
- Accent lighting
- Automotive
- Constant current source
- Constant current sink

TYPICAL APPLICATION CIRCUIT



PIN CONFIGURATIONS