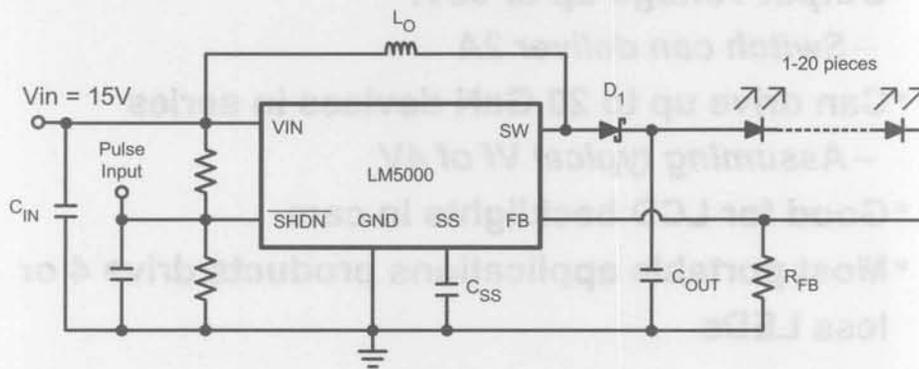


# White LED Backlight Application



The Art of Analog 42

The LM5000 can accept input voltages ranging from 3.1 to 40V. In this circuit a nominal input voltage of 15V represents an unloaded automotive battery. Precise control over the current in the LED string is maintained by replacing the top feedback resistor with the LEDs themselves. (The same procedure used in lower-voltage constant-current LED drives.)  $R_{fb}$  is set so that the regulator increases the current passing through it until the feedback voltage  $V_{fb}$  is reached.