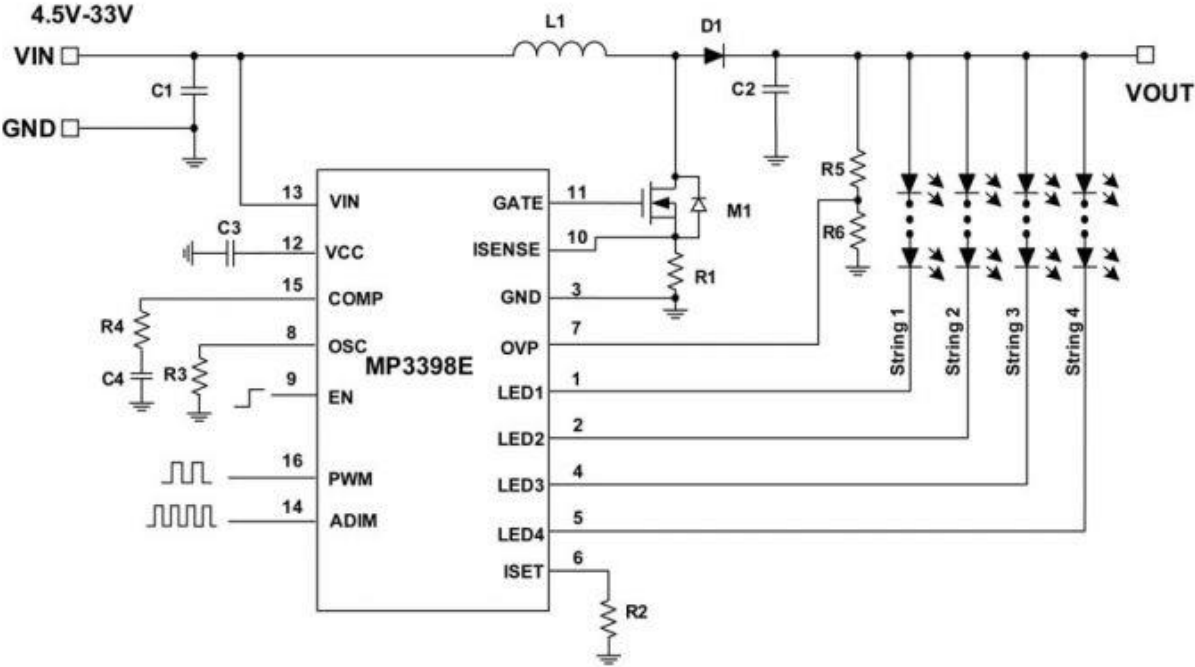




# MP3398EGS-P

4.5V-33Vin, 4-String, Max 400mA/String, 80V Return, Step-Up, WLED Controller



## Description

The MP3398E is a step-up controller with four current channels designed to drive WLED arrays for large LCD panel backlighting applications. The MP3398E is able to expand the number of LED channels with two or more ICs in parallel sharing a single power source. The MP3398E employs peak-current mode with a fixed switching frequency. The frequency is programmable through an external setting resistor. The MP3398E drives an external MOSFET to boost up the output voltage from a 4.5V to 33V input supply and regulates the current in each LED string to the value set by an external current-setting resistor. The MP3398E applies four internal current sources for current balancing. The current matching achieves 2.3% regulation accuracy between strings. The low regulation voltage on the LED current sources reduces power loss.

The MP3398E supports direct PWM dimming and analog dimming with PWM input. Full protection features include over-current protection (OCP), over-temperature protection (OTP), under-voltage protection (UVP), over-voltage protection (OVP), LED short/open protection, and inductor/diode short protection. The MP3398E is available in TSSOP-16EP and PDIP-16 packages.

## Features & Benefits

- 4-String, Max 400mA/String WLED Driver
- 4.5V to 33V Input Voltage Range
- 80V ABS Rating for Each String
- 2.3% Current Matching Accuracy between Each String
- Direct PWM Dimming Mode
- Analog Dimming Mode with PWM Input
- Cascading Capability with a Single Power Source
- LED Open and Short Protection
- Programmable Recoverable Over-Voltage Protection (OVP)
- 202mV Latch-Off Cycle-by-Cycle Current Limit Threshold
- Latch-Off Over-Temperature Protection (OTP)
- Short Inductor/Diode Protection
- Available in TSSOP-16EP and PDIP-16 Packages