



Step-Down, 1A LED Driver

Features

- Backward compatible with MBI6650 in package
- 1A constant output current
- 96% efficiency @ input voltage 12V, 350mA, 3-LED
- 9~36V input voltage range
- Hysteretic PFM improves efficiency at light loading
- Settable output current
- Integrated power switch with 0.45ohm low Rds(on)
- Full protection: Thermal/UVLO/Start-Up/LED Open-/Short- Circuit
- Only 4 external components required

Product Description

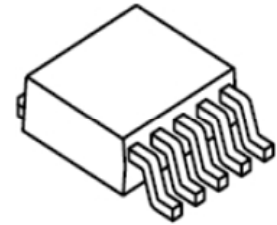
The MBI6651 is a high efficiency, constant current and step-down DC/DC converter. It is designed to deliver constant current to light up high power LED with only 4 external components. With hysteretic PFM control scheme, MBI6651 improves the efficiency of light loading. The output current of MBI6651 can be programmed by an external resistor and LED dimming can be controlled via pulse width modulation (PWM) through DIM pin. In addition, the start-up function limits the inrush current while the power is switch on. The MBI6651 also features under voltage lock out (UVLO), over temperature protection, LED open-circuited protection and LED short-circuited protection to protect IC from being damaged.

Additionally, to ensure the system reliability, the MBI6651 builds thermal protection (TP) function inside. This function protects IC from overheating (165°C) in various application conditions. MBI6651 provides thermal-enhanced packages as well to handle power dissipation more efficiently. MBI6651 is available in TO-252, SOT23-6 and MSOP-8 packages.

Applications

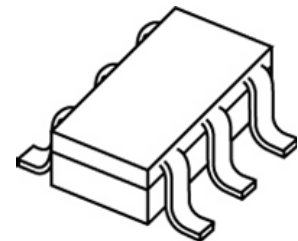
- Signage and Decorative LED Lighting
- Automotive LED Lighting
- High Power LED Lighting
- Constant Current Source

Surface Mount Device



GSD : TO-252-5L

Small Outline Transistor



GST: SOT-23-6L

Mini Small Outline Package



GMS: MSOP-8L-118mil