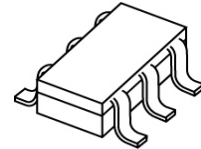
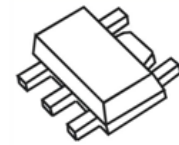


**Step-Down, 1A Dimmable LED Driver****Features****Features**

- 6~40V wide input voltage range
- Maximum 1A constant output current (1.2A for MBI6657GSB)
- PWM/DC input for dimming control
- Hysteretic PFM operation eliminates external compensation design
- Integrated power switch with 0.25-ohm low $R_{ds(on)}$
- Full protections: Thermal Foldback/ Thermal Shutdown/ Schottky Diode Short/ LED Open/Short-Circuit
- Only 5 external components required
- Package MSL Level: 3

Small Outline Transistor

GST: SOT-23-6L



GSB: SOT-89-5L

Product Description

MBI6657 is a step-down constant-current high-brightness LED driver to provide a cost-effective design solution for interior/exterior illumination applications. It is designed to deliver constant current to light up high power LED with only 5 external components. With hysteretic PFM control scheme, MBI6657 eliminates external compensation design and makes the design simple.

The output current of MBI6657 can be programmed by an external resistor and dimmed via pulse width modulation (PWM) or DC voltage through DIM pin to achieve higher efficiency linear current modulation.

MBI6657 features completed protection design to handle faulty situations. The start-up function limits the inrush current while the power is switched on. Thermal shutdown, Thermal Foldback and Schottky diode short (SDS) guard the system to be robust and keep the driver away from being damaged which results from LED open-circuited, short-circuited and other abnormal events. Besides SOT-236 small package, MBI6657 provides thermal-enhanced SOT-89 packages as well to handle power dissipation more efficiently.

Applications

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