

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

- 6~40V wide input voltage range
- Maximum 1A constant output current
- PWM/ DC input for dimming control
- Hysteretic PFM operation eliminates external compensation design
- Integrated power switch with 0.3ohm low $R_{ds(on)}$
- Full protections: UVLO/ Start-Up/ OCP/ Thermal/ LED Open/Short-Circuit
- Only 5 external components required
- Package MSL Level: 3

Product Description

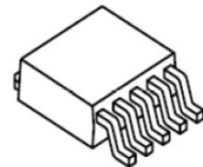
MBI6656 is a step-down constant-current high-brightness LED driver to provide a cost-effective design solution for interior/exterior illumination applications. It is designed to deliver constant current to light up high power LED with only 5 external components. With hysteretic PFM control scheme, MBI6656 eliminates external compensation design and makes the design simple.

The output current of MBI6656 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.

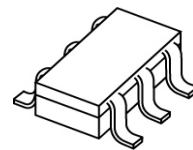
MBI6656 features completed protection design to handle faulty situations. The start-up function limits the inrush current while the power is switched on. Under voltage lock out (UVLO), over temperature protection (OTP), and over current protection (OCP) guard the system to be robust and keep the driver away from being damaged which results from LED open-circuited, short-circuited and other abnormal events. Besides SOT-236 small package, MBI6656 provides thermal-enhanced SOT-89, SOP-8 and TO-252 packages as well to handle power dissipation more efficiently.

Applications

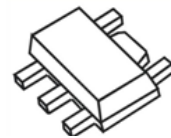
- Signage and Decorative LED Lighting
- High Power LED Lighting
- Constant Current Source

Surface Mount Device

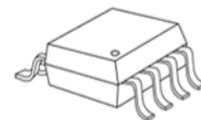
GSD: TO-252-5L

Small Outline Transistor

GST: SOT-23-6L



GSB: SOT-89-5L

Small Outline Package

GD: SOP8L-150-1.27