

## 38V, 1A Buck Constant Current Switching Regulator for WLED

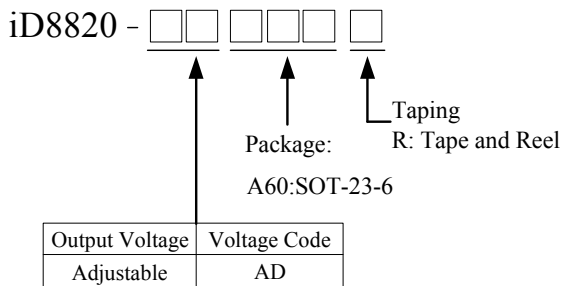
### General Description

The iD8820 is a high voltage step-down LED driver that can deliver up to 1A of output current. It can support the input voltage range from 4.5V to 36V. With its current mode operation, it provides 0.155V feedback voltage, which minimizes the power loss on the sense resistor for the LED driver system. With an internal 650KHz frequency operation, it works well with small external components, such as inductors and ceramic capacitors.

The iD8820 also employs a light load efficiency control scheme. An OVP function protects the IC itself from abnormal input voltage.

The chip also provides protection functions such as cycle-by-cycle current limiting and thermal shutdown protection. The iD8820 is available in a SOT-23-6 package.

### Ordering Information



### Applications

- LED Lighting
- IR LED driver for surveillance camera
- Automobile Applications
- Constant Current Source

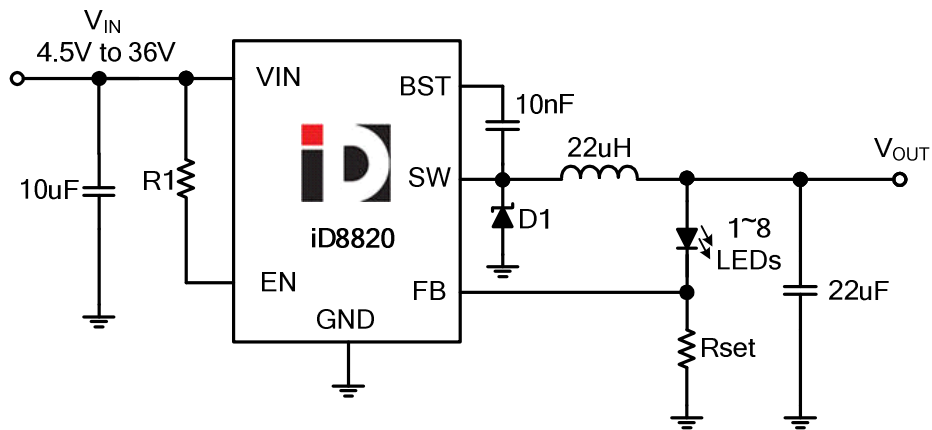
### Features

- Wide Operating Input Voltage Range : 4.5V to 36V
- High Efficiency at Light Load
- Capable of Delivering up to 1A Current
- Internal 650KHz Fixed Switching Frequency
- Current Mode Control
- Thermal Shutdown and UVLO
- PWM Dimming Control
- RoHS Compliant and Halogen Free

### Marking Information

For marking information, please contact our sales representative directly or through distributor around your location.

### Typical Application Circuit



#### Absolute Maximum Ratings

Supply Voltage $V_{IN}$	42V
SW,EN Voltage	-0.3V to ( $V_{IN} + 0.3V$ )
BST Voltage	-0.3V to SW + 6V
FB Voltage	-0.3V to +6V
Power Dissipation, $P_D$ @ $T_A=25^\circ C$	
SOT-23-6	0.4W
Thermal Resistance, $\theta_{ja}$	
SOT-23-6	250°C/W
Lead Temperature	260°C
Storage Temperature	-65°C to 150°C

#### Recommended Operating Conditions

Supply Voltage $V_{IN}$	4.5V to 36V
Junction Temperature	-40°C to 125°C
Ambient Operating Temperatures	-40°C to 85°C