

## HIGH VOLTAGE BOOST DRIVER WITH 6 CHANNELS CONSTANT CURRENT REGULATORS

### DESCRIPTION

The A706 is a high voltage Boost driver with 6 channels adjustable constant current regulators for notebook LED backlight applications. Six regulated current ports are designed to provide uniform and pure DC constant current sinks for driving LEDs within a large range  $V_F$  variations. It can drive a number of LEDs in series/parallel configuration

Users may adjust the output current from 5mA to 40mA through an external resistor,  $R_{SET}$ , which gives users flexibility in controlling the light intensity of LEDs. It also could adjust LED brightness via PWM pin with Pulse Width Modulation signal

A feedback circuit is built in the between of Boost Driver and the Current Regulators. It could sense the lowest dropout voltage among used channels to Boost Driver in order to maintain the output voltage in optimal level. An OVP circuit is built for open-loop protection when any string becomes open.

The thermal protection function protects IC from over temperature damage. Also, the exposed thermal pad enhances the package power dissipation.

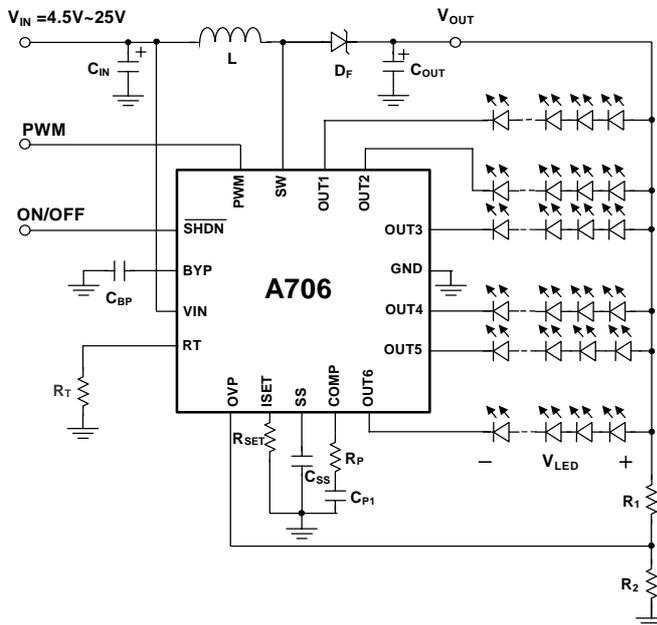
### FEATURES

- High frequency DC/DC converter for LEDs.
- Integrated 40V power MOSFET.
- 4.5V ~ 25V wide input voltage range.
- 6 constant-current output channels.
- Output current adjustable through external resistor.
- Constant output current range: 5mA~40mA.
- 40V output sustaining voltage for up to 10 pcs of LEDs in series.
- Built OCP/OTP/OVP functions.
- LED open/short protection.
- Green Package.

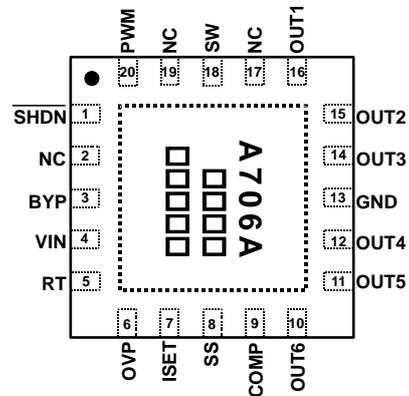
### APPLICATIONS

- Automotive interior lighting
- LED backlight driver for NB and Monitors.

### TYPICAL APPLICATION CIRCUIT



### PACKAGE PIN OUT



QFN – 4mm x 4mm – 20Pins  
(Top View)

### ORDER INFORMATION

	<b>K</b>	QFN 4mm x 4mm
		20 pin
Green Part		A706KGT-A
Note: The letter "G" is marked for Green parts, and letter "T" is marked for Tape & Reel.		