普 誠 科 技
Princeton Technology Corp.

DESCRIPTION

PT6971 is a boost DC/DC converter with one channel constant current regulator, which provides 10mA to 30mA current for up to 8 LEDs in series. The power supply is from 4V to 15V and the max output voltage is 28V. PT6971 provides both PWM dimming and analog dimming functions. The minimum PWM dimming on time is 125ns, which means 0.25% dimming duty-cycle at 20KHz is available.

PT6971 also provides much protections, such as under voltage lockout, cycle by cycle input current limit, output over voltage protection, flywheel diode open protection, feedback over voltage protection, thermal shutdown protection and so on.

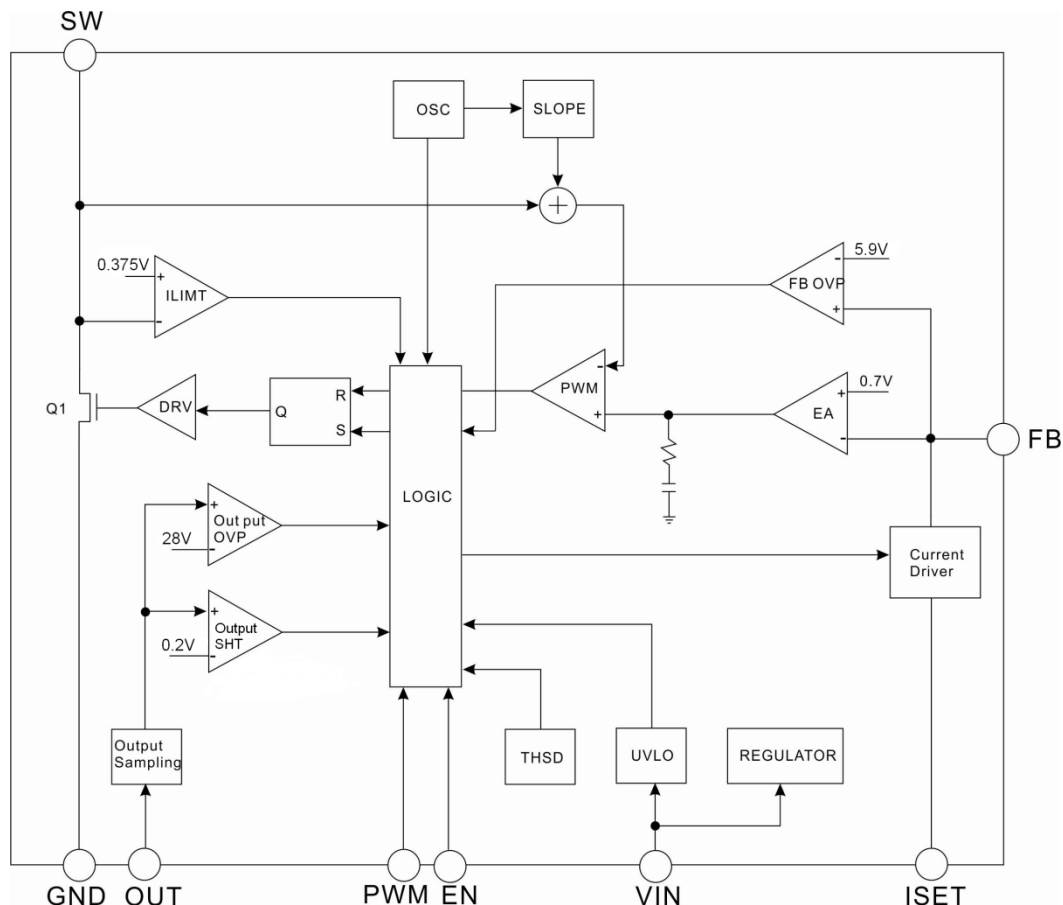PT6971 operates at fixed 600KHz, allowing the use of tiny external components to save space and cost.

FEATURES

- 4~15V Input Voltage
- 10mA~30mA LED Current with ±3% matching
- Drive Up to 8 LEDs
- 600kHz Switching Frequency
- Typical less than 1uA Standby Current
- 28V Output Over Voltage Protection
- LED Open/Short Protection
- Flywheel Diode Open Protection
- Output Short to GND Protection
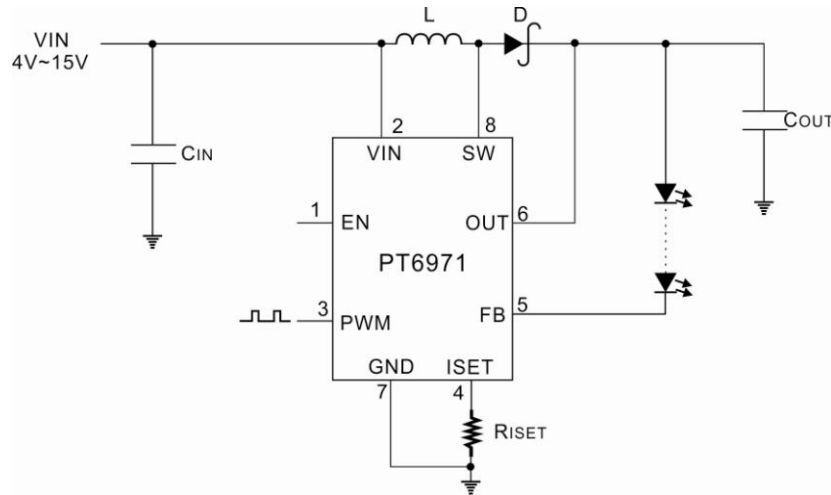- 20kHz 0.25% PWM Dimming Available
- DFN8 Package

APPLICATIONS

- Digital Cameras Monitor Backlighting
- Cell Phones Monitor Backlighting
- PDAs, Handheld Computers Monitor Backlighting
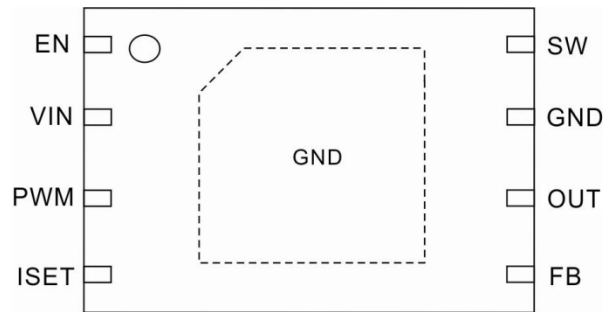- Small LCD Displays Backlighting

BLOCK DIAGRAM

TYPICAL APPLICATIONS

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT6971	8 Pins, DFN（2MM*3MM）	PT6971

PIN CONFIGURATION

PIN DESCRIPTION

Pin Name	Description	Pin No.
EN	Enable control	1
VIN	Power supply pin	2
PWM	PWM Dimming signal input	3
ISET	LED Current setting terminal, connect a resistor between ISET and GND for LED Current setting.	4
FB	Feedback Voltage input	5
OUT	Over Voltage Protection input	6
GND	Ground	7
SW	Switching terminal	8
GND	Ground	Exposed PAD

IMPORTANT NOTICE

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PTC cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a PTC product. No circuit patent licenses are implied.

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