

DESCRIPTION

PT6913 is a special current regulator to drive HV LED. Compact, few external components design is very flexible in many applications. PT6913 provides a programmable 10~60mA constant current. Maximum 400V input voltage provides high reliability for HV LED lighting. The simple driving topology will improve power factor, efficiency. EMI issue will be avoided with this linear control.

Special design is convenient in high-side application. LED open/short is protected by PT6913. The high voltage will be absorbed by PT6913 itself. LEDs will never face high voltage problem.

To improve driving capability, PT6913 provides a pin to drive external MOSFET. It will be flexible in larger current application.

PT6913 also provides temperature attenuation function. When internal junction temperature is higher than 130°C, PT6913 will decrease the output current linearly. The output current will be zero when junction temperature reaches 150°C. This protection effectively avoids the flicker problem during abnormal environment temperature.

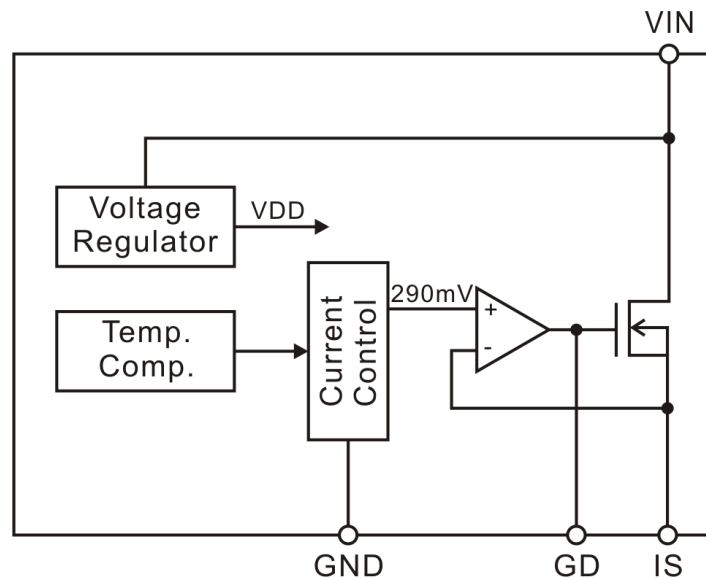
FEATURES

- 8V~400V Operating Voltage
- 10~60mA Programmable Output Current
- $\pm 10\%$ Current Accuracy
- Parallel Using for High Current Application
- Driving External MOSFET for Larger Current
- LED Open/Short Protection
- Temperature Attenuation
 - When $T_j > 130^\circ\text{C}$, output current will be decreased.
 - Output current will be zero when $T_j = 150^\circ\text{C}$
- Electrical Capacitor Needless
- High Power Factor
- High Efficiency
- Few External Components
- SOT89-5 Package

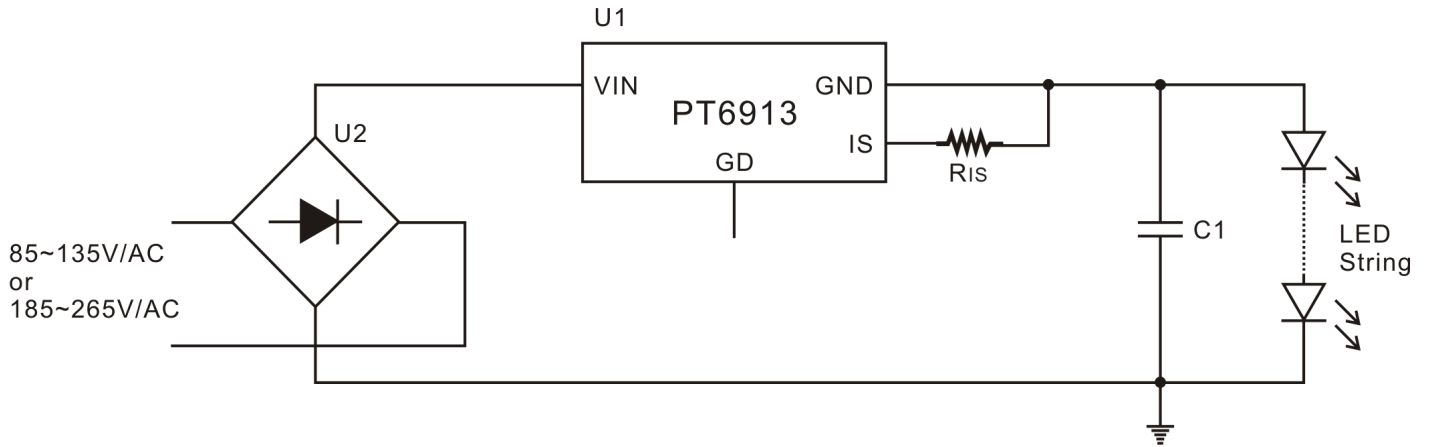
APPLICATIONS

- GU10, MR16, E11, E17 LED Bulb
- Compact Size LED Lighting
- TRIAC Dimming

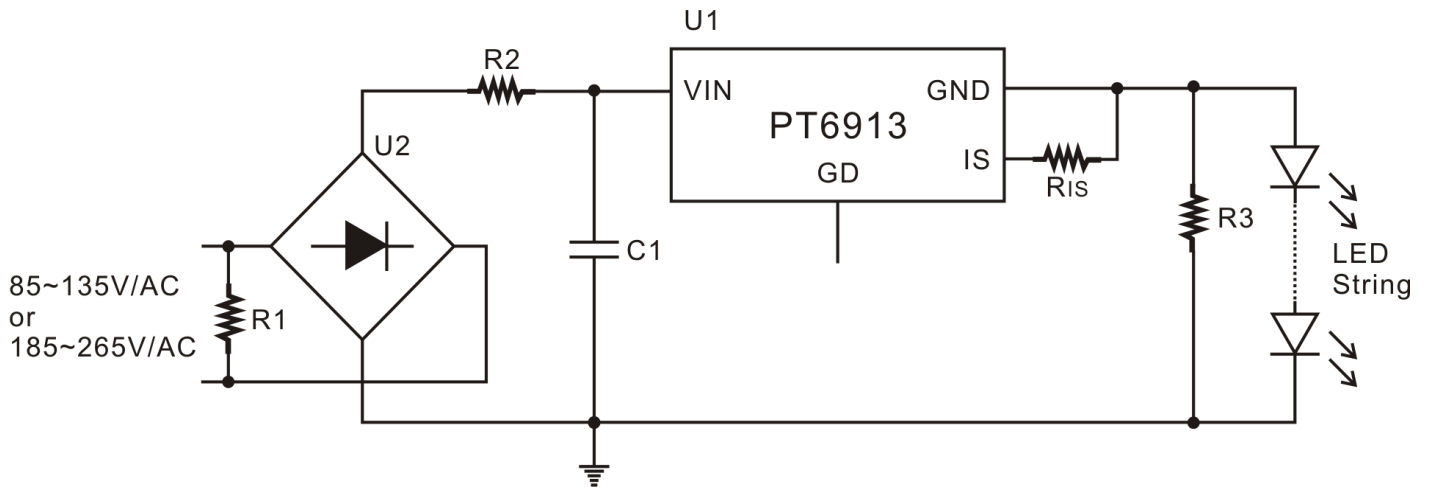
BLOCK DIAGRAM



TYPICAL APPLICATION



Normal Constant Current Regulator for HV LED

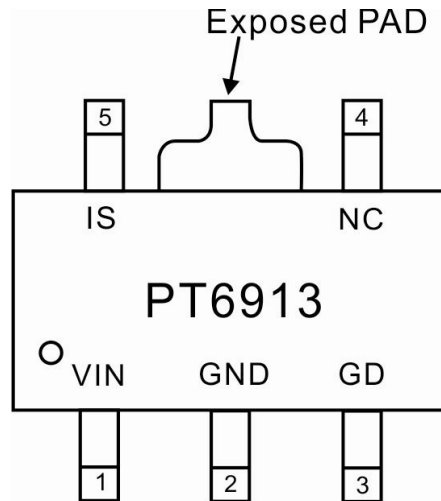


TRIAC Dimming Solution for HV LED

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT6913	SOT89-5	PT6913

PIN CONFIGURATION



PIN DESCRIPTION

Pin Name	Description	Pin No.
VIN	IC Power Supply. VIN pin can be connected to high-voltage directly.	1
GND	IC Ground. The LED current is provided from this pin in typical application.	2
GD	Gate Drive. To improve PT6913 driving capability, GD can be connected with external MOSFET.	3
NC	No Connection.	4
IS	Output Current Setting. The output current is programmable from 10mA to 60mA by a resistor across IS pin and IC GND pin.	5