

## DESCRIPTION

PT6923A is a special current regulator to drive HV LED. The proprietary 3-Segment driving topology will improve power factor, THDI and efficiency. EMI issue will be avoided by special technology during segment switching. Few external components design is very flexible in many compact size applications.

PT6923A supports maximum 400V input voltage that ensures the high reliability for HV LED lighting. LED open/short is protected by PT6923A. The high voltage will be absorbed by PT6923A itself. LEDs will never face high voltage problem.

PT6923A is integrated temperature compensation function. When internal junction temperature is higher than 130°C(Typ.), PT6923A will decrease the output current linearly. The output current will be zero when internal junction temperature reaches 150°C(Typ.). This protection method effectively avoids the flicker problem during abnormal environment temperature.

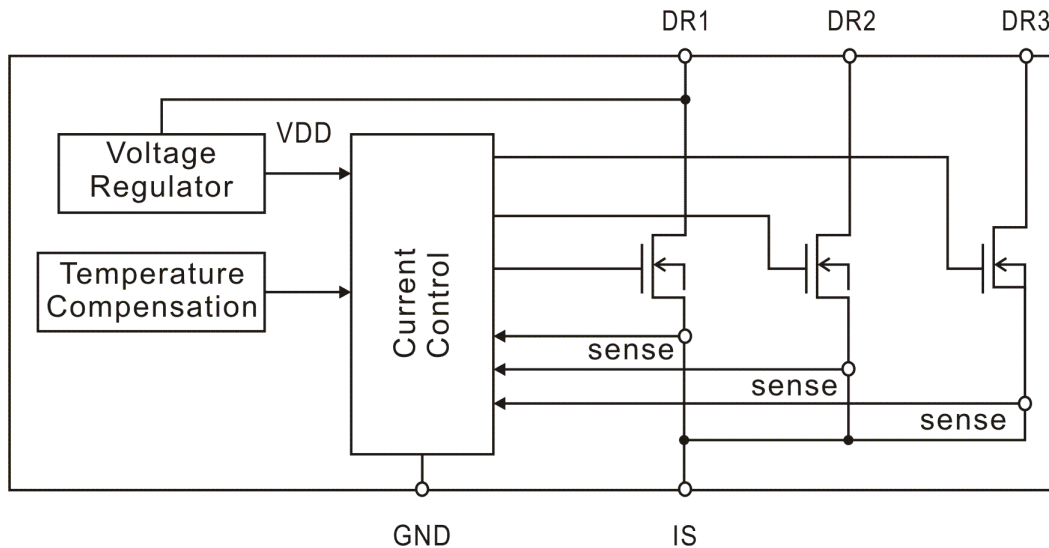
## FEATURES

- 5V~400V Operating Voltage
- Maximum 100mA Peak Output Current
- $\pm 5\%$  Current Accuracy
- Proprietary 3-Segment Driving Technology
- Low THDI
- High Power Factor
- High Efficiency
- Few External Components
- Electrical Capacitor Needless
- LED Open/Short Protection
- Temperature Compensation  
When  $T_J > 130^\circ\text{C}$  (Typ.), output current will decrease.  
Output current will be zero when  $T_J = 150^\circ\text{C}$  (Typ.)
- TO252-5L Package
- ESOP-8L Package

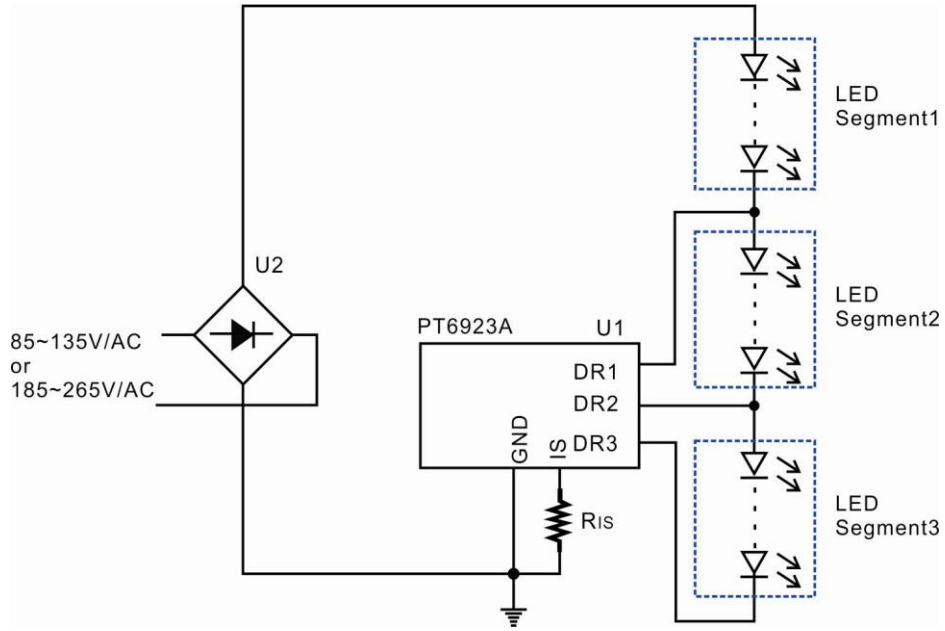
## APPLICATIONS

- LED Bulb
- LED Tube Lamp
- Compact Size LED Lighting

## BLOCK DIAGRAM



# TYPICAL APPLICATION

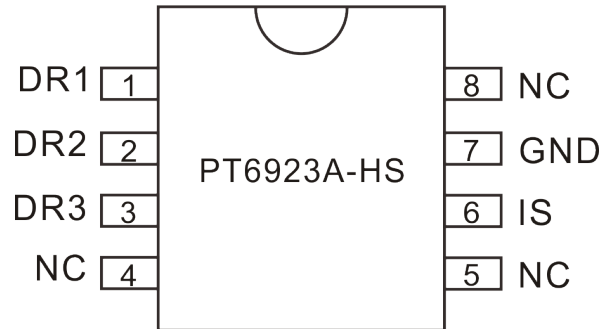
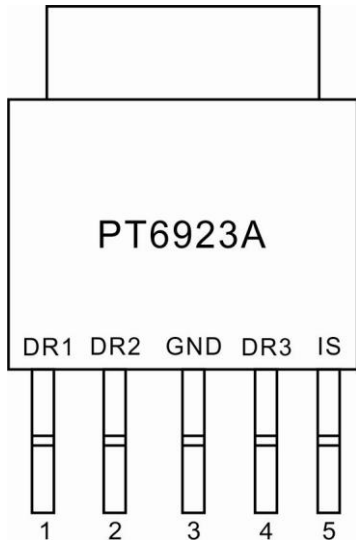


3-Segment Current Regulator for HV LED

## ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT6923A	5-Pin, TO252	PT6923A
PT6923A-HS	8-Pin, ESOP,150mil	PT6923A-HS

## PIN CONFIGURATION



## PIN DESCRIPTION

Pin Name	Description	Pin No.	
		TO252-5	ESOP-8
DR1	IC Power Supply and Drain of the First Switch.	1	1
DR2	Drain of the Second Switch.	2	2
GND	IC Ground.	3	7
DR3	Drain of the Third Switch.	4	3
IS	Output Current Setting. The output current is programmable with a resistor across IS pin and IC GND pin.	5	6

## **IMPORTANT NOTICE**

Princeton Technology Corporation (PTC) reserves the right to make corrections, modifications, enhancements, improvements, and other changes to its products and to discontinue any product without notice at any time.

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

Princeton Technology Corp.  
2F, 233-1, Baociao Road,  
Sindian Dist., New Taipei City 23145, Taiwan  
Tel: 886-2-66296288  
Fax: 886-2-29174598  
<http://www.princeton.com.tw>