# PT4223/26/27/29

Primary Side CC Regulator

#### GENERAL DESCRIPTION

The PT4223/26/27/29 is primary side constant current regulator, which is designed for high performance and cost-effective LED lighting applications. With POWTECH's proprietary constant current compensation technique accurate output current regulation is achieved without the need of a secondary feedback circuitry. Integrated primary inductance compensation circuitry provides accurate constant current operation despite variations in primary inductance. Excellent EMI performance is achieved with frequency jittering function together with soft driving control at totem pole gate drive output.

The device integrates a high voltage power switch, an oscillator, a current sense circuit, CC control circuit. It also features a complete set of integrated protection functions to protect against all fault conditions including output open/short circuit, line under-voltage, and over temperature shut down.

The PT4223 is available in an SOP-8 package; The PT4226 is available in an SOP-8/DIP-8 package. The PT4227/29 is available in an DIP-8 package.

#### **FEATURES**

- CC Without Secondary Feedback
- Integrates high voltage Power Switch
- Inductance Compensation
- Low Startup Current (<10μA)</li>
- Adjustable Primary Side Current limit
- VCC/FB Over Voltage Protection
- VCC/FB UVLO
- Feedback Loop Open Circuit Protection
- Over Temperature Protection

# **APPLICATIONS**

LED lighting application

#### **ORDERING INFORMATION**

PACKAGE	TEMPERATURE RANGE	ORDERING PART NUMBER	TRANSPORT MEDIA	MARKING
SOP-8	-40℃ to 85℃	PT4223ESOH	Tape and Reel 2500 units	PT4223 xxxxxX
SOP-8	-40°C to 85°C	PT4226ESOH	Tape and Reel 2500 units	PT4226 xxxxxX
DIP-8	-40°C to 85°C	PT4226EDIH	Tube 50 units	PT4226 xxxxxX
DIP-8	-40°C to 85°C	PT4227EDIH	Tube 50 units	PT4227 xxxxxX
DIP-8	-40℃ to 85℃	PT4229EDIH	Tube 50 units	PT4229 xxxxxX

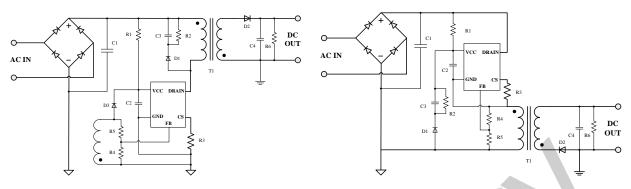
Note:



# PT4223/26/27/29

Primary Side CC Regulator

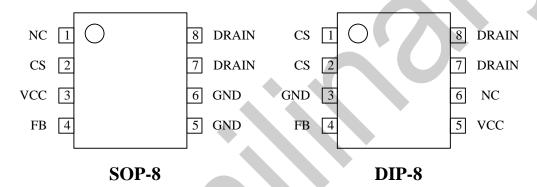
## **TYPICAL APPLICATION CIRCUIT**



Application for three winding

Application for Double winding

## **PIN ASSIGNMENT**



# **PIN DESCRIPTIONS**

PIN No. SOP-8	PIN No. DIP-8	PIN NAMES	DESCRIPTION
2	1,2	CS	Primary Side Current Sense Input
5,6	3	GND	Ground
4	4	FB	Feedback Winding Voltage Sense Input
3	5	VCC	Power supply, the device is supplied by an auxiliary winding.
1	6	NC	Not connected
7,8	7,8	DRAIN	Internal power switch output, drive primary winding