

## DESCRIPTION

The PT5615 is a ballast control IC, with the 650V half-bridge driver and full protections, designed to drive all types of fluorescent lamps. The features such as programmable preheat time and frequency, programmable and precise run frequency, self-adapting ignition time regulator and auto-restart for lamp replacement, provide a high degree of flexibility for the ballast design engineers. The protection features include the filaments detection, ignition failure and end-of-life protection for lamp and the over-current protection for half bridge. It is easy to provide a protection for multi-lamp application. The PT5615 is available in both DIP16 and SOP16 packages.

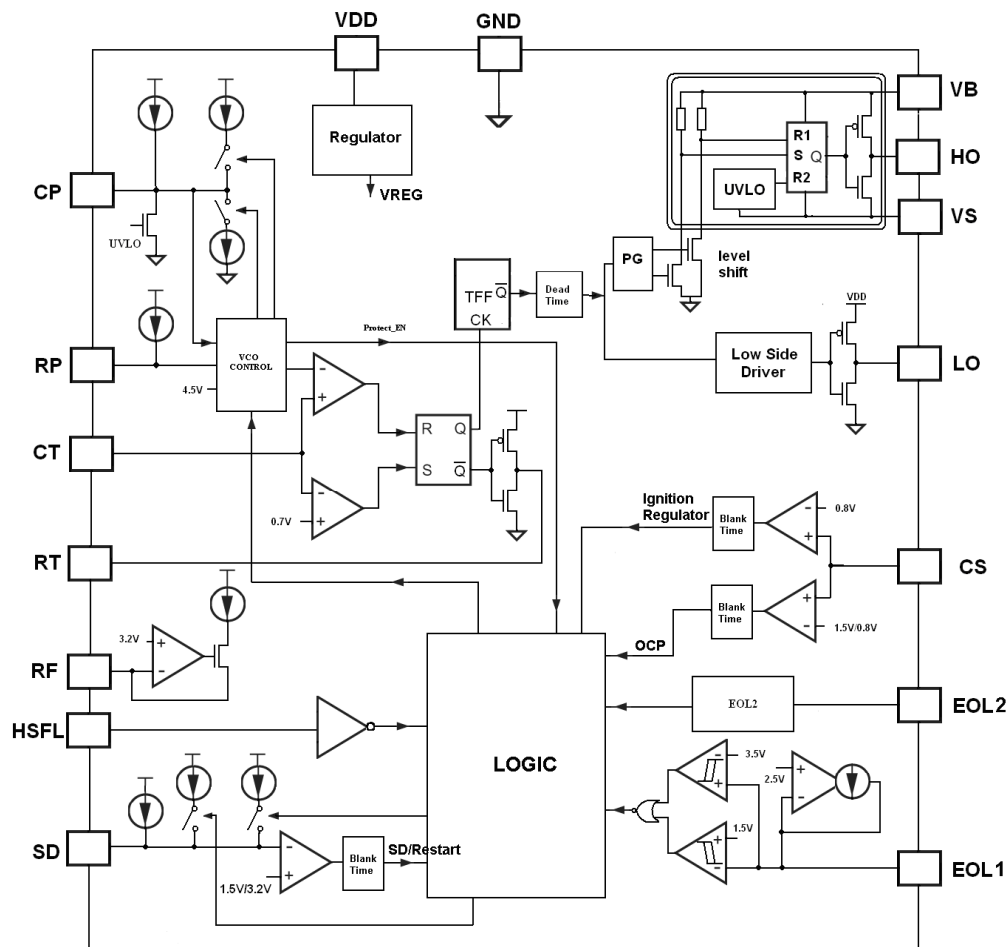
## FEATURES

- 650V half-bridge driver
- Programmable and precise oscillator
- Programmable preheat time and frequency
- Sweeping-frequency ignition
- Fixed dead time
- Self-adapting ignition time regulator
- Ignition failure protection
- End-of-life protection
- Programmable half-bridge over-current protection
- Low side and high side filaments detection
- Auto-restart for lamp replacement
- Support multi-lamp design

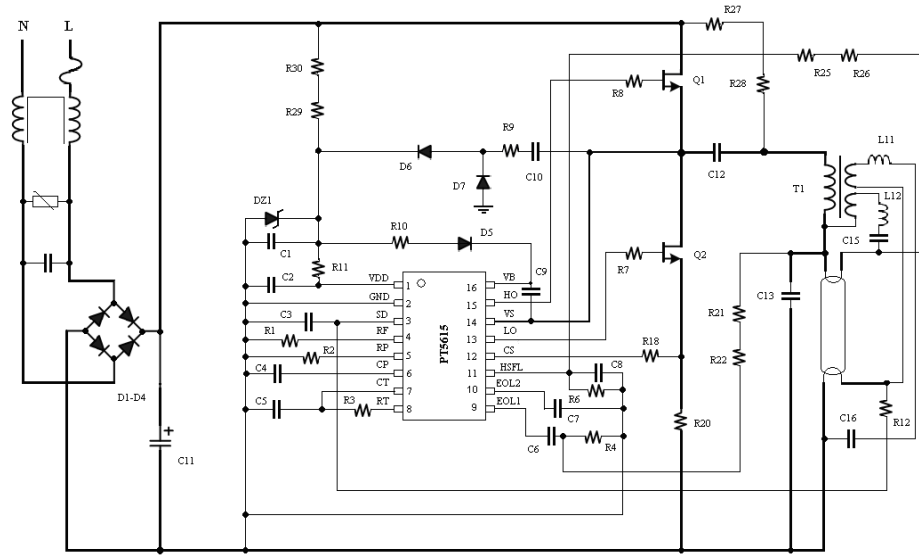
## APPLICATION

- Electronic ballast for all types of fluorescent lamps

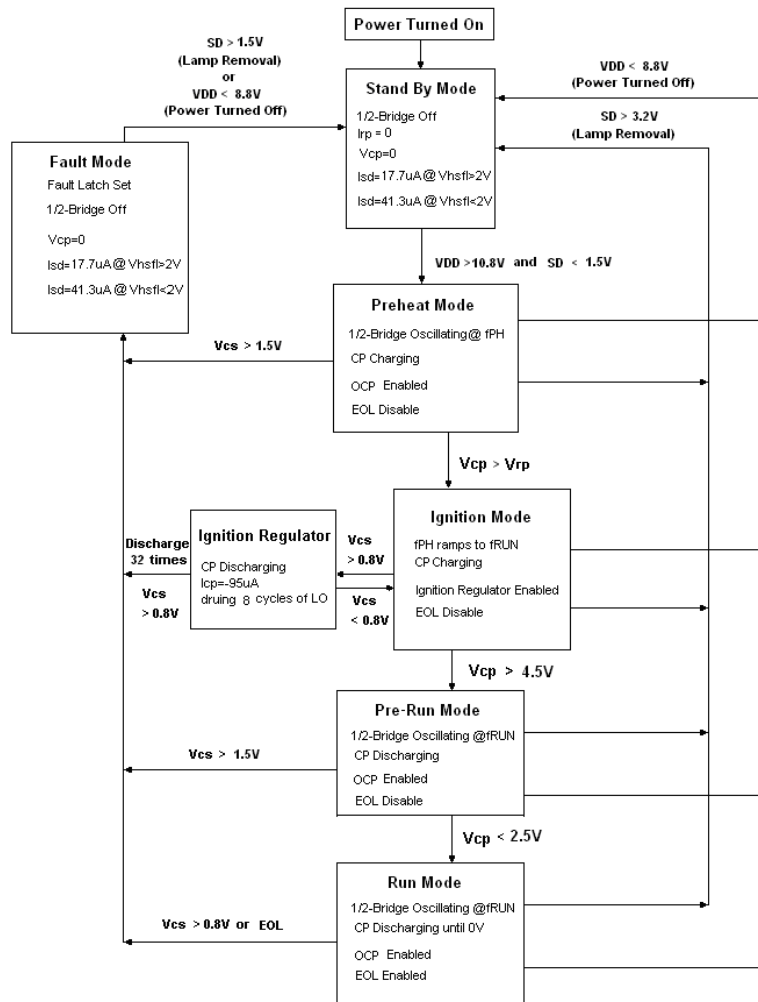
## BLOCK DIAGRAM



# TYPICAL APPLICATION



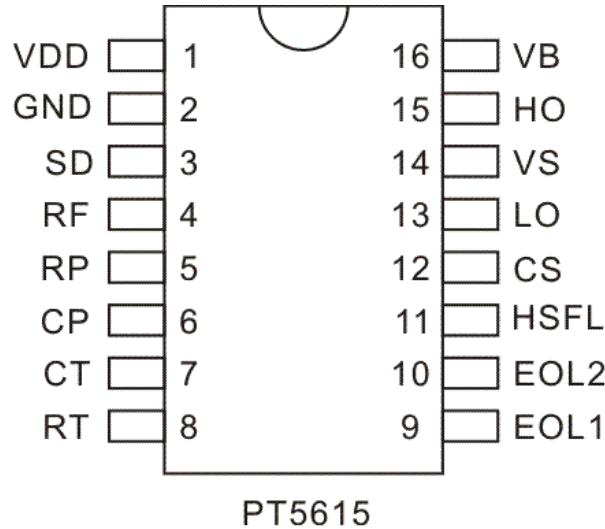
# STATE DIAGRAM



## ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT5615-S	16 Pins, SOP, 150mil	PT5615-S
PT5615-D	16 Pins, DIP, 300mil	PT5615-D

## PIN DESCRIPTION



## PIN DESCRIPTION

Pin Name	Description	Pin No.
VDD	IC power supply	1
GND	System ground	2
SD	Low side filament sensing and shut-down control	3
RF	Internal current bias control, connecting a external resistor (68K, typ.) to GND	4
RP	Preheat frequent setting	5
CP	Preheat time setting	6
CT	Capacitor of the RC oscillator	7
RT	Resistor of the RC oscillator	8
EOL1	End-of-life sensing for Lamp1	9
EOL2	End-of-life sensing for Lamp2	10
HSFL	High side filament sensing	11
CS	Half-bridge current sensing	12
LO	Low side gate driver	13
VS	High side driver floating ground	14
HO	High side gate driver	15
VB	High side driver floating supply	16

## **IMPORTANT NOTICE**

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