

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 SOP18 and SOP16 packages.

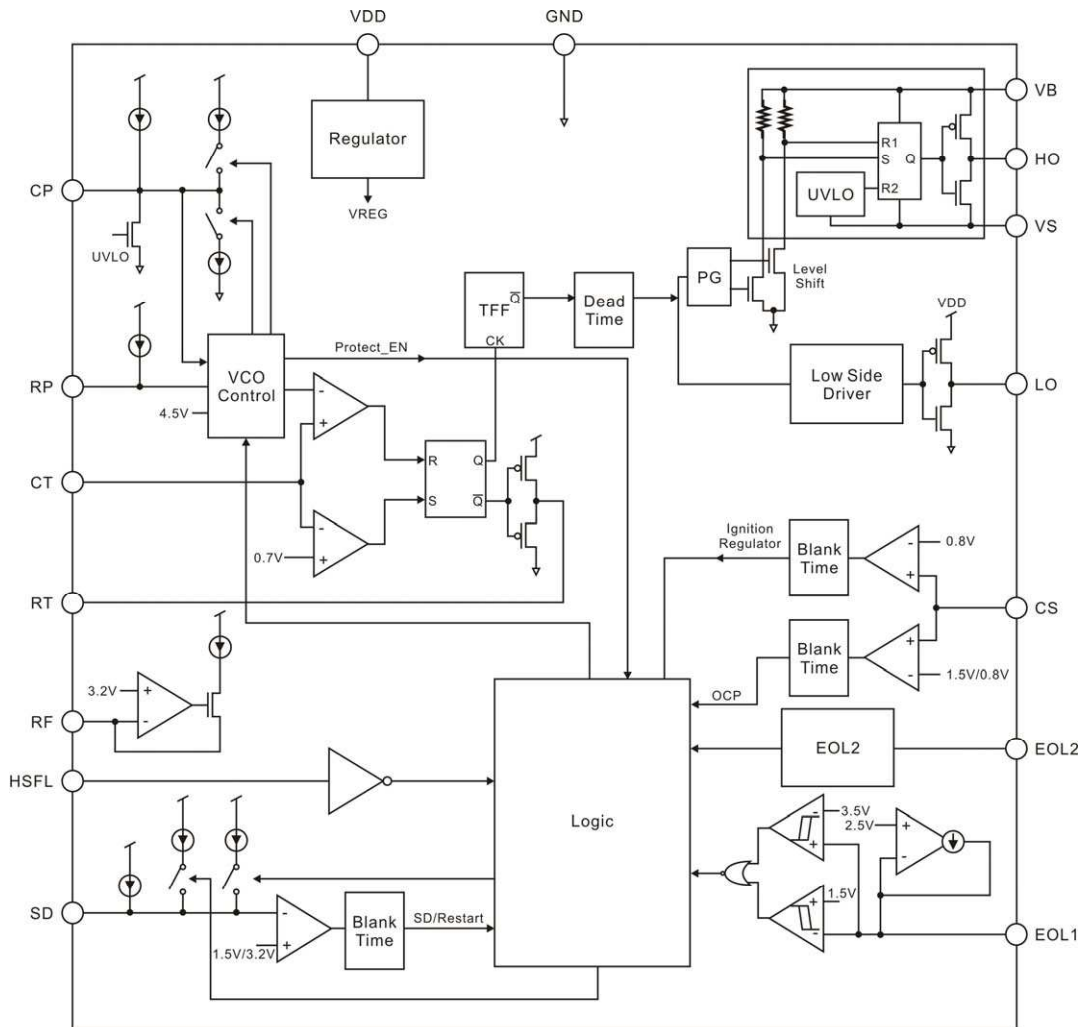
FEATURES

- 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

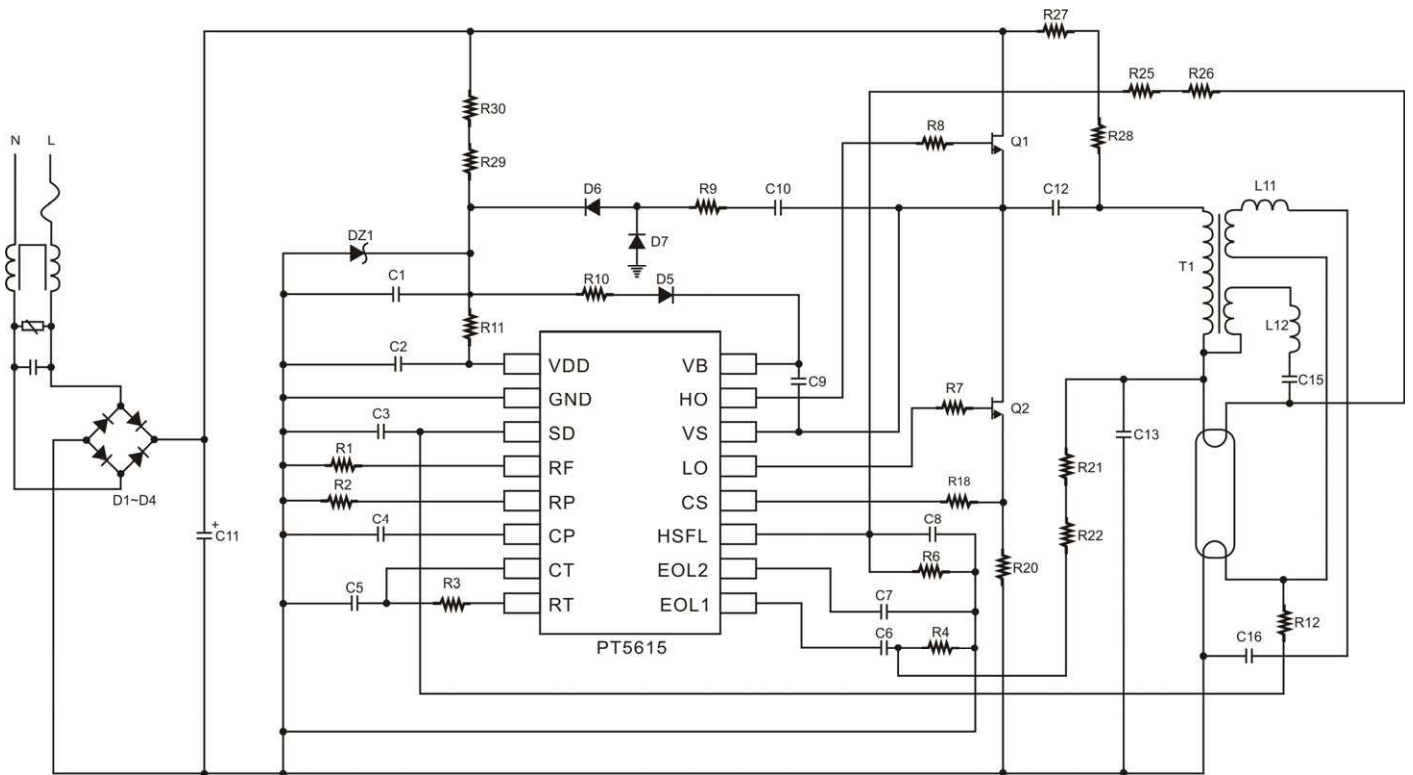
APPLICATION

- Electronic Ballast for all types of Fluorescent Lamps

BLOCK DIAGRAM



TYPICAL APPLICATION

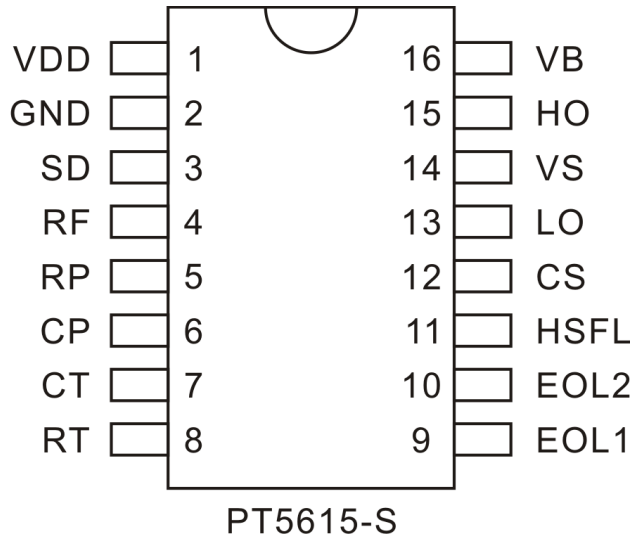


ORDER INFORMATION

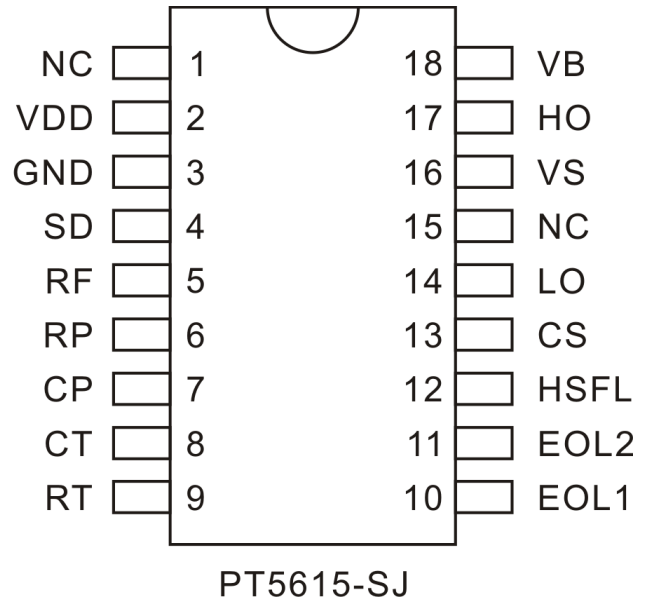
Valid Part Number	Package Type	Top Code
PT5615-S	16 Pins, SOP, 150mil	PT5615-S
PT5615-SJ	18 Pins, SOP, 300mil	PT5615-SJ

PIN DESCRIPTION

16 PINS, SOP



18 PINS, SOP



PIN DESCRIPTION

Pin Name	Description	Pin No.	
		16 Pins	18 Pins
NC	No connection	-	1
VDD	IC power supply	1	2
GND	System ground	2	3
SD	Low side filament sensing and shut-down control	3	4
RF	Internal current bias control, connecting a external resistor (68K, typ.) to GND	4	5
RP	Preheat frequent setting	5	6
CP	Preheat time setting	6	7
CT	Capacitor of the RC oscillator	7	8
RT	Resistor of the RC oscillator	8	9
EOL1	End-of-life sensing for Lamp1	9	10
EOL2	End-of-life sensing for Lamp2	10	11
HSFL	High side filament sensing	11	12
CS	Half-bridge current sensing	12	13
LO	Low side gate driver	13	14
NC	No connection	-	15
VS	High side driver floating ground	14	16
HO	High side gate driver	15	17
VB	High side driver floating supply	16	18

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.

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