

DESCRIPTION

The PT5623 is an electronic ballast controller IC intended for linear dimming product with ordinary switch. The features of the controller IC include closed-loop dimming control of the lamp current, programmable preheat time and preheat frequency, end-of-life protection, low start-up current, precise oscillating frequency, integrated 650V high side half-bridge driver and easy applications. PT5623 is available in both DIP16/SOP16 packages.

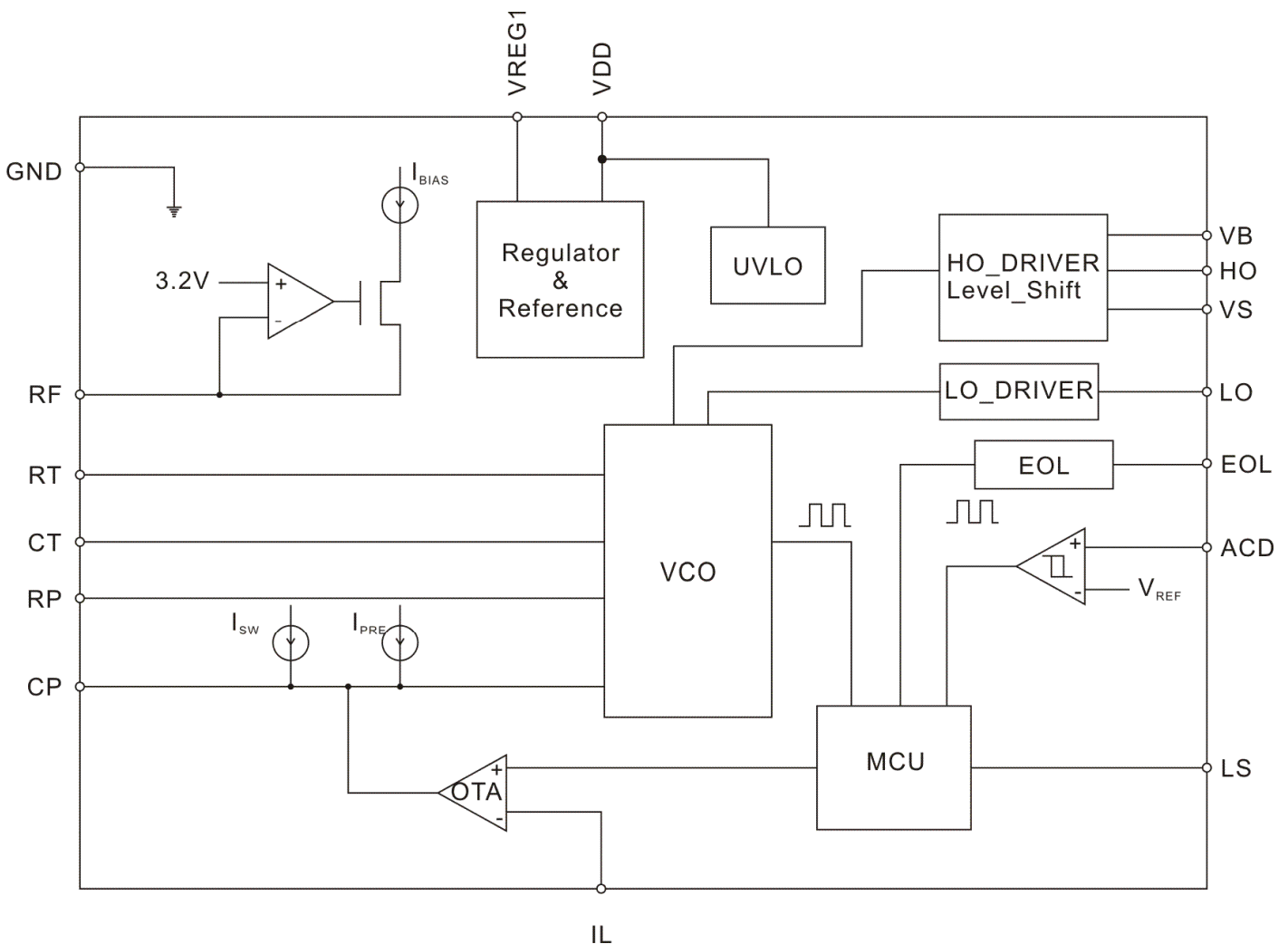
APPLICATION

- Adjustable to various types of fluorescent lamps/CFLs

FEATURES

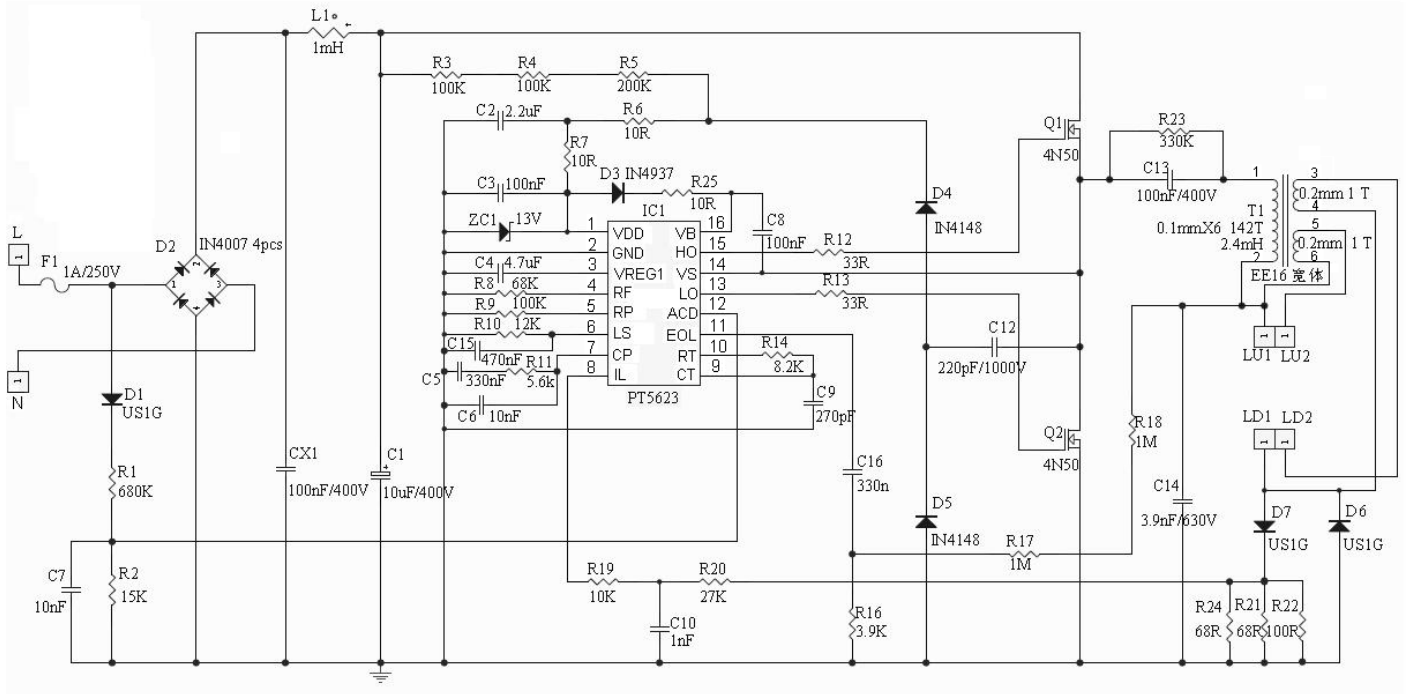
- Linear dimming electronic ballast IC with ordinary switches
- Integrated MCU
- Closed-loop dimming control of the lamp current, supporting low luminance ignition
- Programmable preheat time
- Programmable preheat frequency, sweeping frequency ignition
- Programmable delay time from switch-off to reset state
- Programmable initial luminance (the lowest luminance)
- Fixed dead time
- End-of-life protection
- Integrated 650V high side half-bridge driver
- Supporting DIP16/SOP16 packages

BLOCK DIAGRAM



TYPICAL APPLICATION CIRCUIT

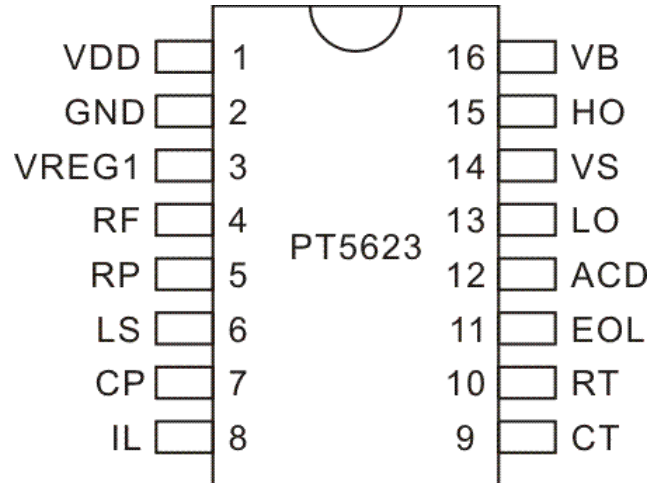
AC: 220V/50Hz, OUTPUT POWER 3W~25W



ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT5623-D	16 Pins, DIP, 300mil	PT5623-D
PT5623-S	16 Pins, SOP, 150mil	PT5623-S

PIN CONFIGURATION



PIN DISCRIPTION

Pin Name	Description	Pin NO.
VDD	Power supply, operating voltage is 13.0V	1
GND	Controller ground	2
VREG1	Standby power supply for internal MCU when the AC power supply is switched off	3
RF	Internal reference current bias setting pin, its voltage is fixed at 3.2V. An external resistor is connected from this pin to GND to determine the internal reference current, typical value is 68K	4
RP	Preheat frequency setting pin, its output current is 29 μ A. An external resistor is connected to this pin and introduces a voltage for VCO	5
LS	Initial luminance (the lowest luminance) setting pin, its output current is 12 μ A. An external resistor is connected to this pin and introduces a voltage for MCU	6
CP	Preheat time and sweeping frequency ignition setting pin	7
IL	Lamp current sensing pin	8
CT	An external capacitor is connected to this pin to determine oscillating frequency	9
RT	An external resistor is connected to this pin to determine oscillating frequency	10
EOL	End-of-life sensing input pin	11
ACD	AC input signal sensing pin	12
LO	Low-side gate driver output	13
VS	High-side floating supply return	14
HO	High-side gate driver output	15
VB	High-side gate driver floating supply	16

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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