

DESCRIPTION

RS2330 is an active transition-mode (TM) power-factor-correction (PFC) controller for AC/DC switching mode power supply applications.

RS2330 features an internal start-up time for stand-alone applications, a quadrant multiplier with THD optimizer for near unity power factor, zero current detector (ZCD) to ensure TM operation, a current sensing comparator with built-in leading-edge blanking, and a totem pole output ideally suited for driving a power MOSFET.

RS2330 offers great protection coverage including system over-voltage protection (OVP) to eliminate runaway output voltage due to load removal, VCC under voltage lockout (UVLO), cycle-by-cycle current limiting, multiplier output clamping that limit maximum peak switch current, and gate drive output clamping for external power MOSFET protection.

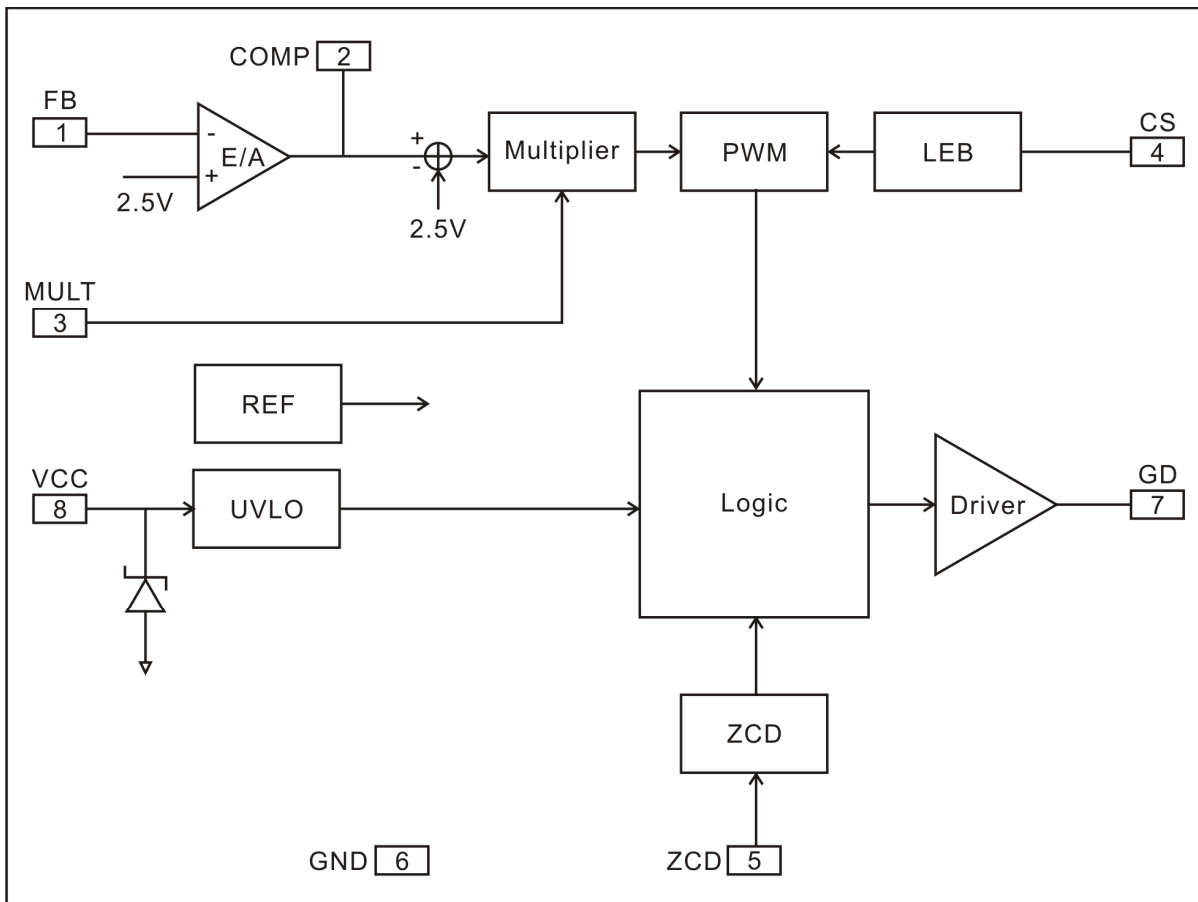
FEATURES

- Active transition-mode(TM) optimizer
- One quadrant multiplier with THD optimizer
- Low dynamic OVP sensing current setting
- Low start-up current and operating current
- Cycle-by-cycle current limiting
- Internal RC filter
- Trimmed 1.5% internal band-gap reference
- Under Voltage Lockout (UVLO) with hysteretic static output Over-Voltage Protection(OVP)
- Internal start-up timer for stand-alone clamping
- Disable function
- Totem pole output with high state clamping
- Proprietary audio noise free operation
- 11V to 32V wide range of VCC voltage
- 3000V HBM ESD
- SOP-8L green package

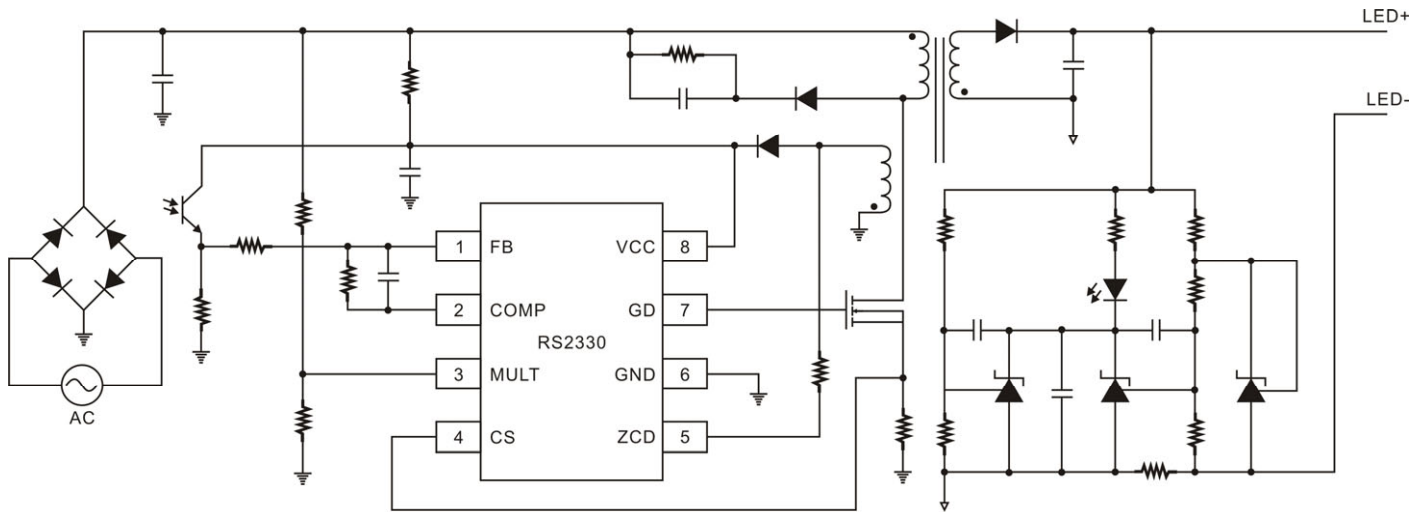
APPLICATIONS

- Single stage high PF flyback AC/DC SMPS
- LED lighting power

BLOCK DIAGRAM



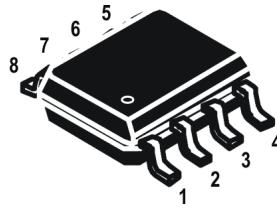
APPLICATION CIRCUIT



ORDER INFORMATION

Device	Device Code
RS2330 Y Z	<p>Y is package & Pin Assignments designator: S : SOP-8</p> <p>Z is Lead Free designator: P: Commercial Standard, Lead (Pb) Free and Phosphorous (P) Free Package G: Green (Halogen Free with Commercial Standard)</p>

PIN CONFIGURATION



PIN DESCRIPTION

Pin Name	Description	Pin No.
FB	Inverting Input of Error Amplifier. Connected to Resistor Divider from system Output. This is also used for system open loop protection.	1
COMP	Out of Error Amplifier. A feedback compensation network is placed between COMP and the FB pin.	2
MULT	Input of Multiplier. Connected to Line Voltage after Bridge Diodes via A Resistor Divider to provide Sinusoidal Reference Voltage to the Current loop.	3
CS	Current Sense Input pin. Connected to MOSFET Current Sensing Node.	4
ZCD	Zero Current Detection Input. When Activated, A New Switching Cycle Starts. If it is connected to GND, the device is disabled.	5
GND	Ground pin	6
GD	Gate driver output. Drive power MOSFET.	7
VCC	DC Power Supply Voltage.	8

IMPORTANT NOTICE

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