

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



RS2330

PIN CONFIGURATION



PIN DESCRIPTION

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

IMPORTANT NOTICE

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