

GENERAL DESCRIPTION

OB2358 combines a dedicated current mode PWM controller with a high voltage power MOSFET. It is optimized for high performance, low standby power, and cost effective off-line flyback converter applications in sub 27W range.

OB2358 offers complete protection coverage with automatic self-recovery feature including Cycle-by-Cycle current limiting (OCP), over load protection (OLP), VDD over voltage clamp and under voltage lockout (UVLO). Excellent EMI performance is achieved with On-Bright proprietary frequency shuffling technique together with soft switching control at the totem pole gate drive output.

The tone energy at below 20KHZ is minimized in the design and audio noise is eliminated during operation. OB2358 is offered in DIP8 package.

FEATURES

- Power on Soft Start Reducing MOSFET Vds Stress
- Frequency shuffling for EMI
- Extended Burst Mode Control For Improved Efficiency and Minimum Standby Power Design
- Audio Noise Free Operation

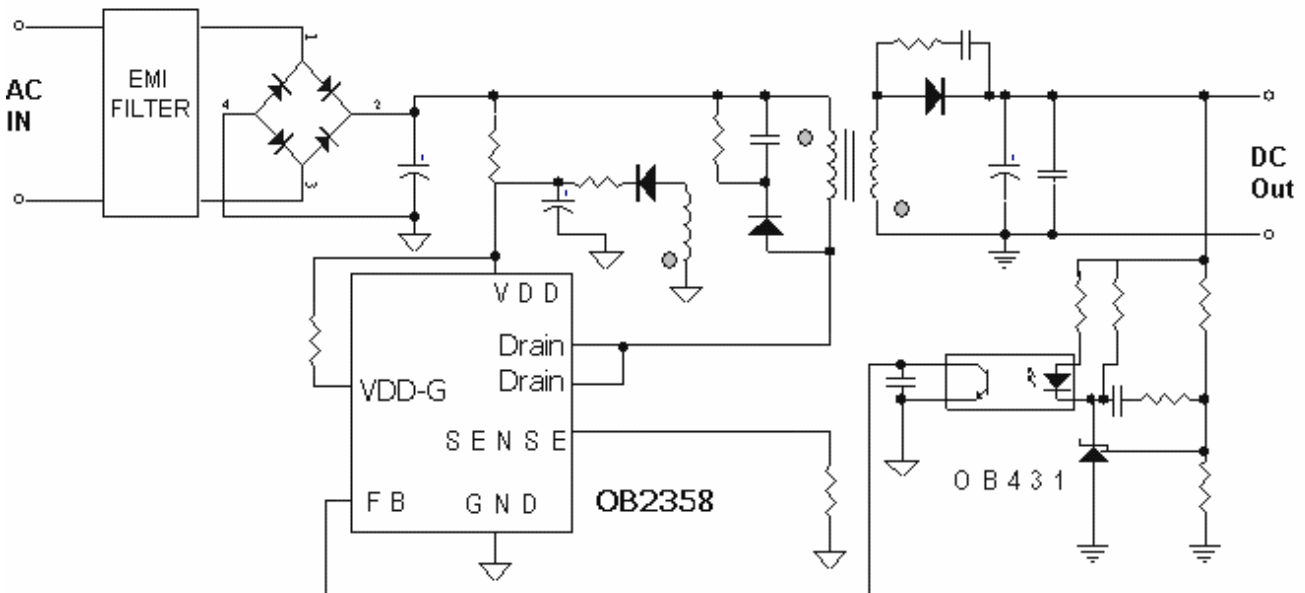
- Fixed 50KHZ Switching Frequency
- Internal Synchronized Slope Compensation
- Low VDD Startup Current and Low Operating Current
- Leading Edge Blanking on Current Sense Input
- Good Protection Coverage With Auto Self-Recovery
 - VDD Over Voltage Clamp and Under Voltage Lockout with Hysteresis (UVLO)
 - On-Bright Proprietary Line Input Compensated Cycle-by-Cycle Over-current Threshold Setting For Constant Output Power Limiting Over Universal Input Voltage Range.
 - Overload Protection (OLP).
 - Over voltage Protection(OVP)

APPLICATIONS

Offline AC/DC flyback converter for

- AC/DC adaptor
- PDA power supplies
- Digital Cameras and Camcorder Adaptor
- VCR, SVR, STB, DVD&DVCD Player SMPS
- Set-Top Box Power
- Auxiliary Power Supply for PC and Server
- Open-frame SMPS

TYPICAL APPLICATION



Output Power Table

Product	230VAC±15%	85-265VAC
	Open Frame ¹	Open Frame ¹
OB2358	27W	16W

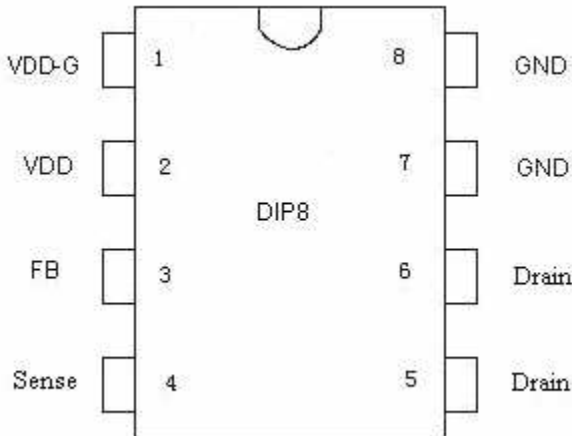
Notes:

1. Maximum practical continuous power in an open frame design with sufficient drain pattern as a heat sink, at 50°C ambient.

GENERAL INFORMATION

Pin Configuration

The OB2358 is offered in DIP8 package as shown below.



Ordering Information

Part Number	Description
OB2358AP	DIP8, Pb-free

Package Dissipation Rating

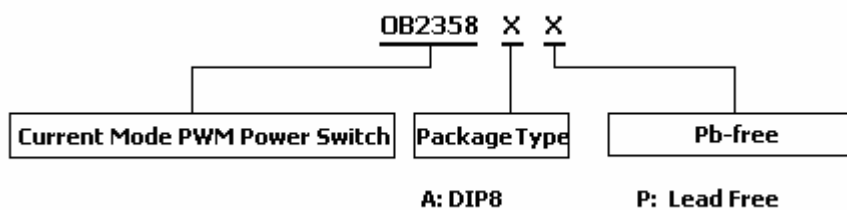
Package	R θ JA (°C/W)
DIP8	75

Note: Drain Pin Connected to 100mm² PCB copper clad.

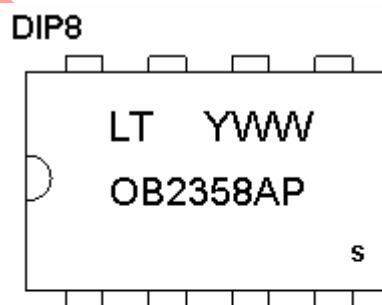
Absolute Maximum Ratings

Parameter	Value
Drain Voltage (off state)	-0.3V to BV _{dss}
VDD Voltage	-0.3V to 30 V
VDD-G Input Voltage	-0.3V to 30 V
VDD Clamp Continuous Current	10mA
FB Input Voltage	-0.3 to 7V
Sense Input Voltage	-0.3 to 7V
Min/Max Operating Junction Temperature T _j	-20 to 150°C
Min/Max Storage Temperature T _{stg}	-55 to 150°C
Lead Temperature (Soldering, 10secs)	260°C

Note: Stresses beyond those listed under "absolute maximum ratings" may cause permanent damage to the device. These are stress ratings only, functional operation of the device at these or any other conditions beyond those indicated under "recommended operating conditions" is not implied. Exposure to absolute maximum-rated conditions for extended periods may affect device reliability.



Marking Information



Y: Year Code(0-9)
 WW: Week Code(01-52)
 A: DIP8 Package
 P: Pb-free Package
 S: Internal Code(Optional)

TERMINAL ASSIGNMENTS

Pin Name	I/O	Description
GND	P	Ground
FB	I	Feedback input pin. The PWM duty cycle is determined by voltage level into this pin and the current-sense signal at Pin 4.
VDD-G	P	Internal Gate Driver Power Supply
SENSE	I	Current sense input
VDD	P	IC DC power supply Input
Drain	O	HV MOSFET Drain Pin. The Drain pin is connected to the primary lead of the transformer

BLOCK DIAGRAM
