

GENERAL DESCRIPTION

OB2276 is a highly integrated current mode PWM control IC optimized for high performance, low standby power and cost effective offline flyback converter applications.

PWM switching frequency at normal operation is internally fixed and is trimmed to tight range. At no load or light load condition, the IC operates in extended 'burst mode' to minimize switching loss. Lower standby power and higher conversion efficiency is thus achieved.

VDD low startup current and low operating current contribute to a reliable power on startup and low standby design with OB2276.

OB2276 offers complete protection coverage with auto-recovery including Cycle-by-Cycle current limiting (OCP), over load protection (OLP), Brownout protection, and VDD under voltage lockout (UVLO). It also provides latch shut down mode protection include fixed/adjustable VDD over voltage protection (OVP), over temperature protection (OTP) and output over voltage protection. Excellent EMI performance is achieved with On-Bright proprietary frequency shuffling technique.

The tone energy at below 22KHZ is minimized in the design and audio noise is eliminated during operation.

OB2276 is offered in SOP8 package.

FEATURES

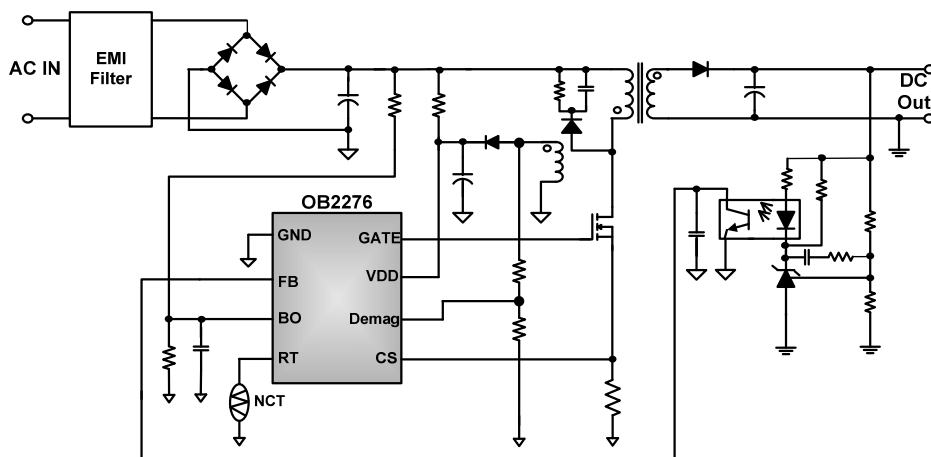
- Power on Soft Start Reducing MOSFET Vds Stress
- Frequency shuffling for EMI
- Extended Burst Mode Control For Improved Efficiency and Minimum Standby Power Design
- Audio Noise Free Operation
- Fixed 65KHZ Switching Frequency
- Comprehensive Protection Coverage
 - VDD Under Voltage Lockout with Hysteresis (UVLO)
 - Cycle-by-cycle over current threshold setting for constant output power limiting over universal input voltage range
 - Overload Protection (OLP) with auto-recovery
 - Brownout Protection with auto-recovery
 - Fixed VDD OVP with latch shut down
 - Adjustable VDD OVP with latch shut down
 - Over Temperature Protection with latch shut down
 - Output Over Voltage Protection with latch shut down

APPLICATIONS

Offline AC/DC flyback converter for

- Battery Charger
- Power Adapter
- Set-Top Box Power Supplies
- Open-frame SMPS

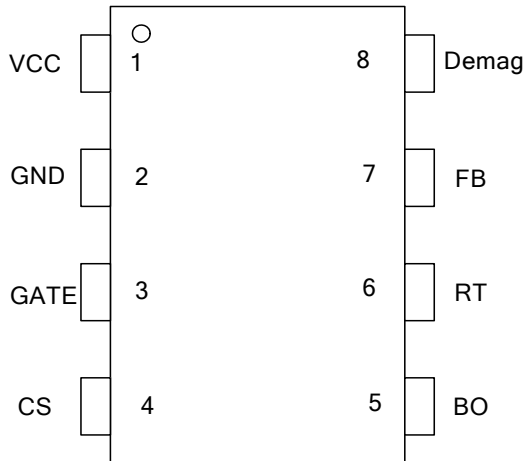
TYPICAL APPLICATION



GENERAL INFORMATION

Pin Configuration

The OB2276 is offered in SOP8 package, shown as below.



Package Dissipation Rating

Package	R θ JA(°C/W)
SOP8	150

Absolute Maximum Ratings

Parameter	Value
VDD DC Supply Voltage	VOVP-1V
VDD Zener Clamp Voltage ^{Note}	VDD_Clamp+0.1V
VDD DC Clamp Current	10 mA
FB Input Voltage	-0.3 to 7V
Sense Input Voltage	-0.3 to 7V
BO Input Voltage	-0.3 to 7V
RT Input Voltage	-0.3 to 7V
Min/Max Operating Junction Temperature T _J	-40 to 150 °C
Min/Max Storage Temperature T _{stg}	-55 to 150 °C
Lead Temperature (Soldering, 10secs)	260 °C

Note: VDD_Clamp has a nominal value of 34V.

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.

Ordering Information

Part Number	Description
OB2276CP	SOP8, Pb-free in Tube
OB2276CPA	SOP8, Pb-free in T&R

