



VIPer12ADIP VIPer12AS

LOW POWER OFF LINE SMPS PRIMARY SWITCHER

TYPICAL POWER CAPABILITY

Mains type	SO-8	DIP8
European (195 - 265 Vac)	8 W	13 W
US / Wide range (85 - 265 Vac)	5 W	8 W

- FIXED 60 KHZ SWITCHING FREQUENCY
- 9V TO 38V WIDE RANGE V_{DD} VOLTAGE
- CURRENT MODE CONTROL
- AUXILIARY UNDERVOLTAGE LOCKOUT WITH HYSTERESIS
- HIGH VOLTAGE START UP CURRENT SOURCE
- OVERTEMPERATURE, OVERCURRENT AND OVERVOLTAGE PROTECTION WITH AUTORESTART

DESCRIPTION

The VIPer12A combines a dedicated current mode PWM controller with a high voltage Power



SO-8



DIP-8

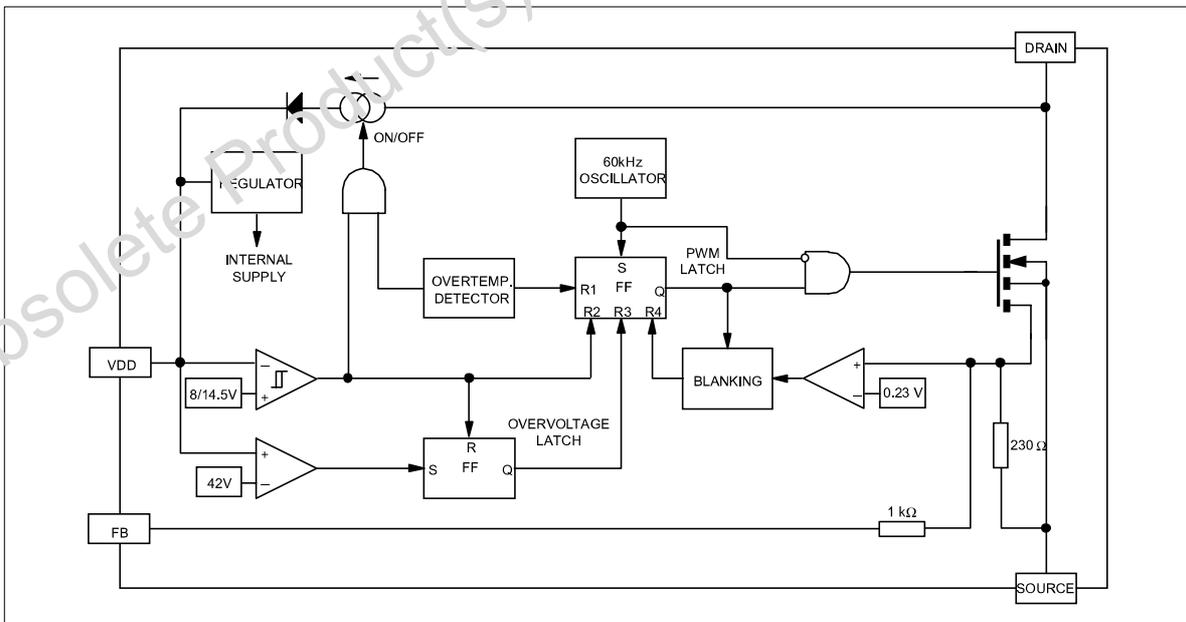
ORDER CODES

PACKAGE	TUBE	T&R
SO-8	VIPer12AS	VIPer12AS13TR
DIP-8	VIPer12ADIP	

MOSFET on the same silicon chip. Typical applications cover off line power supplies for battery charger adapters, standby power supplies for TV or monitors, auxiliary supplies for motor control, etc. The internal control circuit offers the following benefits:

- Large input voltage range on the V_{DD} pin accommodates changes in auxiliary supply voltage. This feature is well adapted to battery charger adapter configurations.
- Automatic burst mode in low load condition.
- Overvoltage protection in hiccup mode.

BLOCK DIAGRAM

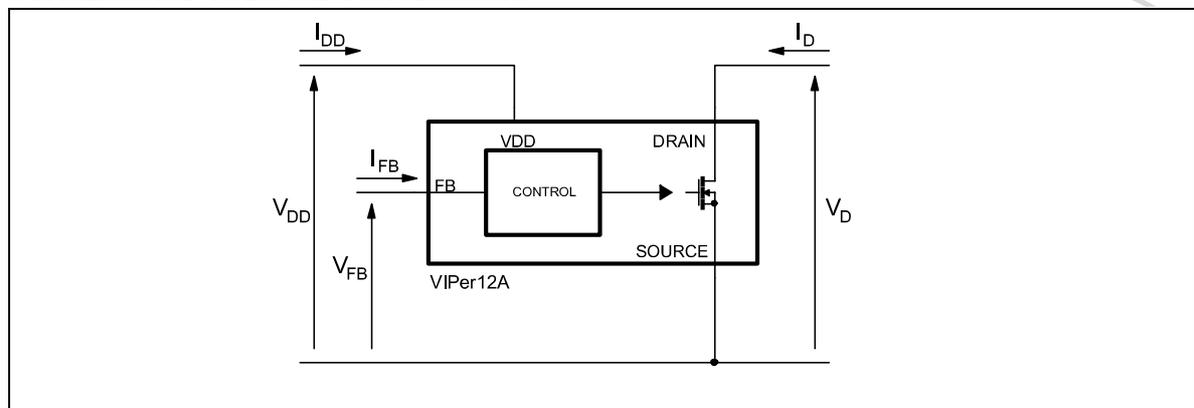


VIPer12ADIP / VIPer12AS

PIN FUNCTION

Name	Function
V _{DD}	Power supply of the control circuits. Also provides a charging current during start up thanks to a high voltage current source connected to the drain. For this purpose, an hysteresis comparator monitors the V _{DD} voltage and provides two thresholds: - V _{DDon} : Voltage value (typically 14.5V) at which the device starts switching and turns off the start up current source. - V _{DDoff} : Voltage value (typically 8V) at which the device stops switching and turns on the start up current source.
SOURCE	Power MOSFET source and circuit ground reference.
DRAIN	Power MOSFET drain. Also used by the internal high voltage current source during start up phase for charging the external V _{DD} capacitor.
FB	Feedback input. The useful voltage range extends from 0V to 1V, and defines the peak drain MOSFET current. The current limitation, which corresponds to the maximum drain current, is obtained for a FB pin shorted to the SOURCE pin.

CURRENT AND VOLTAGE CONVENTIONS



CONNECTION DIAGRAM

