

## GENERAL DESCRIPTION

OB2211 is an offline PWM Power switch for low power AC/DC charger and adaptor applications. It operates in primary-side sensing and regulation. Consequently, opto-coupler and TL431 could be eliminated. Proprietary Constant Voltage (CV) and Constant Current (CC) control is integrated as shown in the figure below.

In CC control, the current and output power setting can be adjusted externally by the sense resistor  $R_s$  at CS pin. In CV control, multi-mode operations are utilized to achieve high performance and high efficiency. Device operates in fixed frequency mode at large load conditions, frequency reduction mode at light/medium load and 'Extended burst mode' at No/light load conditions.

OB2211 offers power on soft start control and protection coverage with auto-recovery features including Cycle-by-Cycle current limiting, VDD over-voltage clamp and UVLO, fail-safe protection for open loop fault condition. Excellent EMI performance is achieved with On-Bright proprietary frequency shuffling technique together with soft switching control at the totem pole gate drive output.

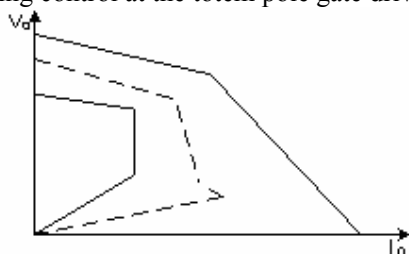


Fig 1. Typical CC/CV Curve

## FEATURES

- Primary-side Sensing and Regulation Without TL431 and Opto-coupler
- Multi-mode Operation for High Efficiency
- Programmable CV and CC Regulation
- Adjustable Constant Current and Output Power setting
- Frequency Shuffling and Adjustable Gate Drive Greatly Improving EMI
- Power on Soft-start Time (4ms)
- "Extended Burst Mode Control" for Improved Efficiency and Minimum Standby Design
- Built-in Leading Edge Blanking (LEB)
- Cycle-by-Cycle Current Limiting
- VDD Under Voltage Lockout with Hysteresis (UVLO)
- VDD Over Voltage Shutdown and Clamp
- Auto-restart in Over Voltage condition
- Fail-safe protection for open loop fault condition

## APPLICATIONS

Low Power AC/DC offline SMPS for

- Cell Phone Charger
- Digital Cameras Charger
- Small Power Adaptor
- Auxiliary Power for PC, TV etc.
- Linear Regulator/RCC Replacement

OB2211 is offered in SOP8 package.

## TYPICAL APPLICATION

