## GENERAL DESCRIPTION

OB2226 is a high performance, high precision and low cost PWM Power switch for non-isolated buck application. It combines a dedicated current mode PWM controller (with a high voltage power MOSFET with DIP7 package) and built-in error amplifier for low cost and component count. With precise inner resistor divider, precise reference of EA and load compensation, accurate constant voltage regulation at universal AC input can be guaranteed. For high efficiency, oscillator with frequency-reduction control is implemented. And EMI performance is achieved with On-Bright proprietary frequency shuffling technique.
OB2226 offers power on soft start control and protection coverage with auto-recovery features including Cycle-by-Cycle current limiting, over loading protection, output short-circuit protection, over temperature protection, VDD OVP, and UVLO.
OB2226 is offered in SOP8 or DIP7 package.

## FEATURES

- Low cost and component count buck application
- Built-in error amplifier
- Load compensation
- Oscillator of fixed frequency with frequencyreduction control for high efficiency
- Frequency shuffling for EMI improvement
- Power on Soft-start
- Built-in Leading Edge Blanking (LEB)
- Cycle-by-Cycle Current Limiting
- Over Loading Protection
- Output Short-Circuit Protection
- Over Temperature Protection
- VDD Under Voltage Lockout with Hysteresis (UVLO)
- VDD OVP


## APPLICATIONS

Low Power AC/DC offline SMPS for

- Electrical Appliance
- Linear Regulator/RCC Replacement


## TYPICAL APPLICATION



Note: GND* Only in SOP8 package

OB2226
High Precision Low Cost MCM Power Switch

## GENERAL INFORMATION

## Pin Configuration

The pin map is shown as below for SOP8 and DIP7.


## Ordering Information

| Part Number | Description |
| :--- | :--- |
| OB2226SP | DIP7, Pb-free, Tube |
| OB2226CP-H | SOP8, Pb-free, Tube |
| OB2226CPA-H | SOP8, Pb-free, T\&R |

Package Dissipation Rating

| Package | R日JA ( ${ }^{\circ} \mathrm{C} / \mathbf{W}$ ) |
| :--- | :--- |
| DIP7 | 75 |
| SOP8 | 90 |

Note: Drain Pin Connected $100 \mathrm{~mm}^{2}$ PCB copper clad.

Absolute Maximum Ratings

| Parameter | Value |
| :--- | :--- |
| Drain Voltage (off state) | -0.3 V to BVdss |
| VDD Voltage | -0.3 to 40 V |
| VDD Zener Clamp <br> Continuous Current | 10 mA |
| COMP Voltage | -0.3 to 7 V |
| CS Input Voltage | -0.3 to 7 V |
| Min/Max Operating <br> Junction Temperature $\mathrm{TJ}_{\mathrm{J}}$ | -40 to $150{ }^{\circ} \mathrm{C}$ |
| Min/Max Storage <br> Temperature $\mathrm{T}_{\text {stg }}$ | -55 to $150{ }^{\circ} \mathrm{C}$ |
| Lead Temperature <br> (Soldering, 10secs) | $260{ }^{\circ} \mathrm{C}$ |

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
WW:Week Code(01-52)
ZZZ:Lot Code
C:SOP8 Package
$\mathrm{P}: \mathrm{Pb}$-free Package
S:Internal Code(Optional)


Y:Year Code
WW:Week Code(01-52)
ZZZ:Lot Code
S:DIP7 Package
$\mathrm{P}: \mathrm{Pb}$-free Package
S:Internal Code(Optional)

## TERMINAL ASSIGNMENTS

| Pin Num | Pin Name | I/O | Description |
| :--- | :--- | :--- | :--- |
| 1 | VDD | P | Power Supply |
| 2 | COMP | I | Loop Compensation for CV Stability |
| 3 | NC | I | Not connected |
| 4 | CS | I | Current sense input |
| $5 / 6$ | DRAIN | O | HV MOSFET Drain Pin. The Drain pin is connected to the primary lead <br> of the transformer / inductance. |
| $7 / 8$ | GND | P | Ground |

## OUTPUT POWER TABLE

| Product | 90~300VAC | 90~264VAC |
| :---: | :---: | :---: |
|  | Buck topology, open frame | Flyback topology, open frame |
| OB2226SP | 6.6 W | 10 W |
| OB2226CP | 4.0 W | 6.0 W |

## X-ON Electronics

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NCP81005MNTWG NCP81101BMNTXG NCP81205MNTXG HV9123NG-G-M934 IR35207MTRPBF ISL6367HIRZ CAT874-80ULGT3
SJ6522AG SJE6600 TLE63893GV50XUMA1 IR35215MTRPBF SG3845DM NCP1216P133G NCP1236DD65R2G NCP1247BD100R2G
NCP1250BP65G NCP4202MNR2G NCP4204MNTXG NCP6132AMNR2G NCP81141MNTXG NCP81142MNTXG NCP81172MNTXG
NCP81203MNTXG NCP81206MNTXG NX2155HCUPTR UC3845ADM UBA2051C IR35201MTRPBF MAX8778ETJ+
MAX17500AAUB+T MAX17411GTM+T MAX16933ATIR/V+ NCP1010AP130G NCP1063AD100R2G NCP1216AP133G
NCP1217AP100G

