

Primary Side CC/CV Regulator

GENERAL DESCRIPTION

The PT2208 is a high performance AC/DC power supply controller which integrates a 730V power switch. PT2208 is targeted to 5-7W designed for flyback topology, and regulates output current/voltage without the secondary feedback loop. The ultra-low operating current at light load ensures that the PT2208 is ideal for applications targeting the newest regulatory standards for average efficiency and standby power.

The PT2208 integrates line and primary inductance compensation and ensures output current free of line voltage and primary inductance variation. The output cable compensation is intergrated. The output regulation can be controlled within 3% using proprietary compensation technology.

The PT2208 integrated HV MOS and Cycle by Cycle Current Limit, VDD UV protection, OVP protection and Voltage Clamp to improve reliability. The PT2208 is available in a SOP8 package.

FEATURES

- High Constant Current/Voltage Accuracy (+/-3%)
- frequency jittering(+/-4%)
- Integrated primary inductance compensation
- Internal output cable c compensation
- Leading edge blanking function
- High Voltage startup circuit
- Cycle by Cycle Current Limit
- VDD OVP Protection
- Standby Power less than 120mW@220Vac
- Output short Protection

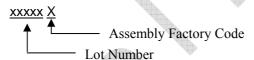
APPLICATIONS

- AC/DC LED lighting
- AC-DC RCC chargers replacement
- Power Adapters and Battery Chargers
- Standby and Auxiliary Suppliers

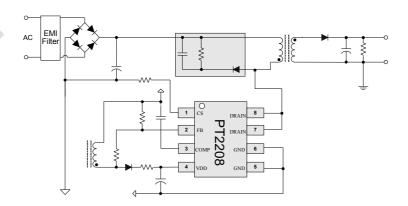
ORDERING INFORMATION

| PACKAGE | TEMPERATURE RANGE | ORDERING PART NUMBER | TRANSPORT MEDIA | MARKING | |
|---------|----------------------|-------------------------|-----------------------|------------------|--|
| SOP8 | -20°C to +85°C | PT2208ESOH | 2500 Tape and Reel | PT2208 xxxxxX | |

Note:

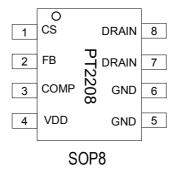


TYPICAL APPLICATION CIRCUIT





PIN ASSIGNMENT



PIN DESCRIPTIONS

| PIN No. | PIN NAMES | DESCRIPTION | |
|---------|--------------|--|--|
| 1 | CS | Primary winding current sensing pin | |
| 2 | FB | Voltage Feedback | |
| 3 | COMP | Compensation pin for constant voltage control loop | |
| 4 | VDD | Power supply. | |
| 5 | GND | Ground | |
| 6 | GND | Ground | |
| 7 | DRAIN | This pin is connected with an internal power switch drain. | |
| 8 | DRAIN | This pin is connected with an internal power switch drain. | |

ABSOLUTE MAXIMUM RATINGS (note1)

| SYM | PARAMETER | VALUE | UNIT |
|-----------------------|----------------------------------|------------|----------------------|
| VDS(max) | DRAIN Max Voltage | -0.3~730 | V |
| VDD | IC Supply Voltage | -0.3~34 | V |
| I _{DD_Clamp} | V _{DD} DC Clamp Current | 10 | mA |
| $ m V_{FB}$ | FB Pin Voltage Range | -0.3~7 | V |
| V_{COMP} | COMP Pin Voltage Range | -0.3~7 | V |
| V_{CS} | CS Pin Voltage Range | -0.3~7 | V |
| $T_{\mathbf{A}}$ | Operating Temp. Range | -20 to 85 | $^{\circ}\mathbb{C}$ |
| T_{STG} | Storage Temp. Range | -40 to 150 | $^{\circ}$ |
| RΘJA | SOP8 | 65 | °C/W |
| HBM | ESD Capability, HBM (note2) | 4000 | V |