# DESCRIPTION

The SS6200 is a single Phase MOSFET gate driver optimized to drive the gates of both high-side and low-side power MOSFETs.

The integrated bootstrap diode reduces external component count. With a wide operating voltage range, high or low side MOSFET gate drive voltage can be optimized for the best efficiency. Internal adaptive non-overlap circuit further reduces switching losses by preventing simultaneous conduction of both MOSFETs.

The UVLO circuits prevent malfunction when VCC is lower than the specified threshold voltage.

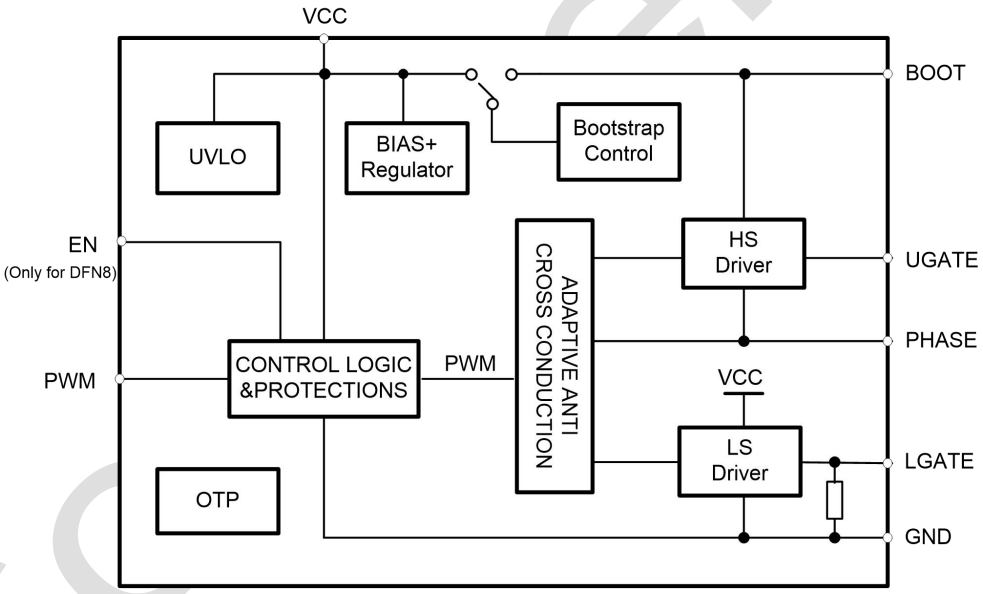
# FEATURES

- Drive two N-MOSFETs
- High-Frequency operation (Up to 1MHz)
- PWM input capable of 3.3V and 5V
- Fast output rise time
- Internal bootstrap diode
- Adaptive shoot through protection
- Under-voltage lockout
- Internal thermal shutdown
- Small size package：SOP8, DFN2x2-8L
- These are Pb-Free Devices

# APPLICATIONS

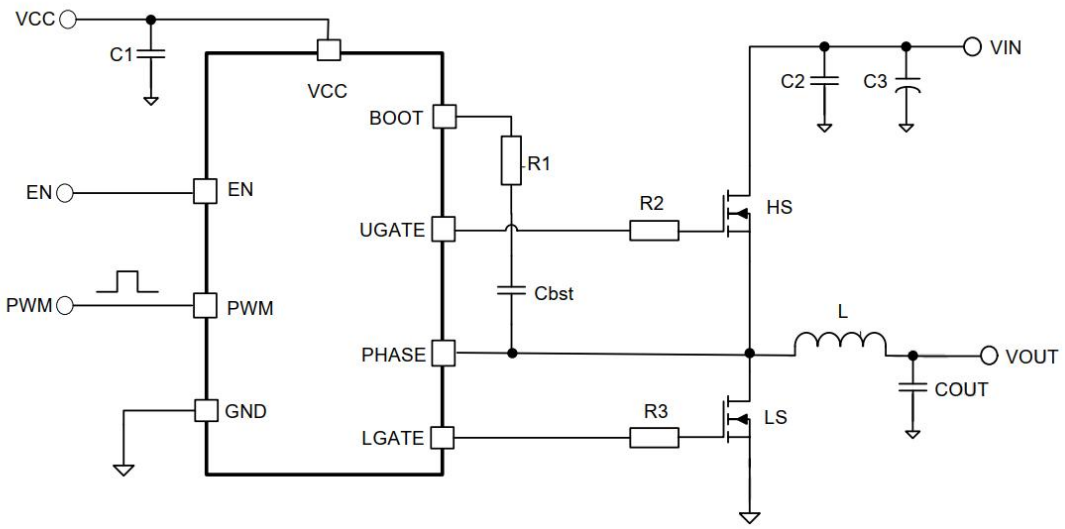
- Wireless Charger for 5W to 20W Systems
- Half or full bridge driver for N+N MOSFET

# BLOCK DIAGRAM



# APPLICATION CIRCUIT

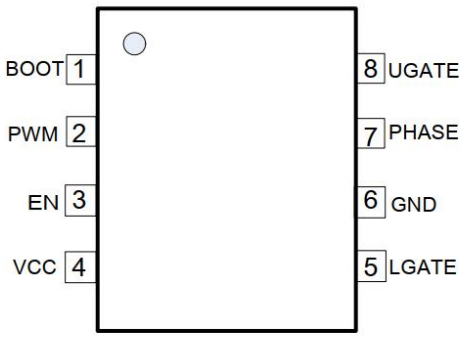
SOP8/DFN2x2-8L:



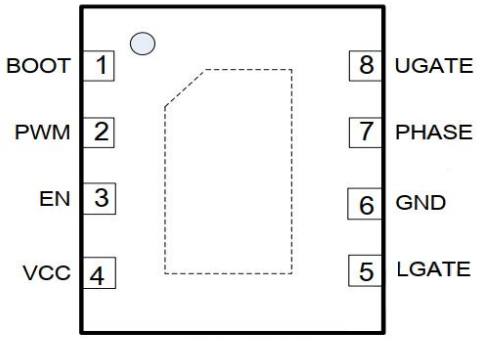

Reference Design of BOM:

| Name | Value | Name | Value |
|---|---|---|---|
| C1 | 10uF | R1 | 0 |
| C2 | 0.1uF | R2 | 5ohm |
| C3 | 22uF | R3 | 0 |
| Cbst | 680nF | | |

# PIN CONFIGURATION




SOP8




DFN8(2X2)

# PIN DESCRIPTION

| Pin Name | Description | Pin No. |
|---|---|---|
| BOOT | Floating bootstrap supply pin for upper gate drive | 1 |
| PWM | Input PWM signal for controlling the Driver | 2 |
| EN | Logic input for standby mode control | 3 |
| VCC | Logic and low-side gate drivers power supply voltage | 4 |
| LGATE | Lower gate drive output | 5 |
| GND | Ground | 6 |
| PHASE | Connect this pin to the source of the high side MOSFET and the drain of the low side MOSFET | 7 |
| UGATE | Upper gate drive output | 8 |