

**Features**

- Drivers two N-channel MOSFET
- Wide gate driver voltage: 4.6V up to 18V
- Input PWM signals: 2.0V up to 5.5V
- High frequency operation
- Under voltage lockout
- Build temperature protect
- Internal bootstrap diode
- High-side full duty drive
- Green Product (RoHS, Lead-Free, Halogen-Free Compliant)

**Applications**

- Motor Driver
- PWM controller
- Electronic cigarettes

**General Description**

The GS6109 is a high frequency MOSFET gate driver that is optimized to drive the gates of both high-side and low-side power MOSFETs. The high-side and low-side driver is capable of driving 3nF load with a 25ns propagation delay and a 30ns transition time (typical).

The GS6109 operates in a wide range input voltage from 4.6V to 18V, the chip integrated internal bootstrap diode for driving upper power MOSFET. The GS6109 supports high switching frequency with a PWM signal input up to 1Mhz, and shoot-through protection to prevent the damage between upper and lower MOSFET channels.

The IC is offered in SOP-8, TDFN8-2x2 and TDFN8-3x3 packages.

**Typical Application**

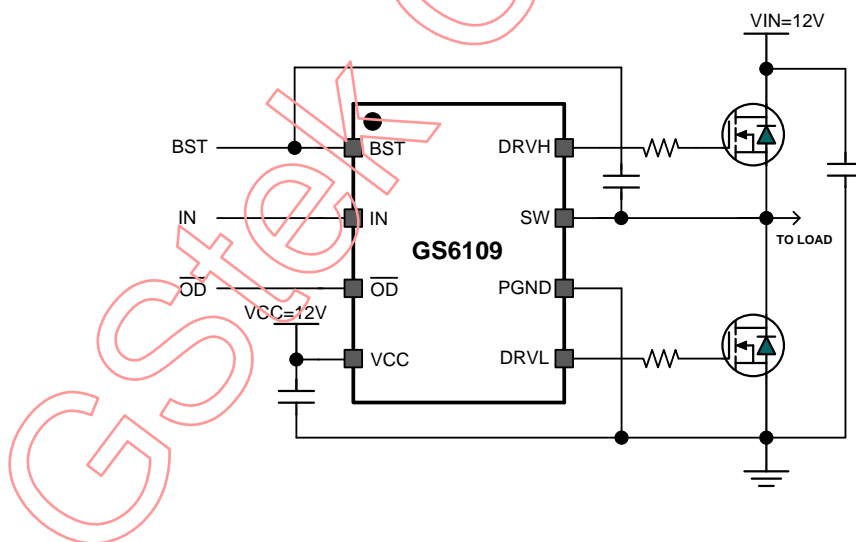


Figure 1 Typical Application of GS6109

For high input voltage VIN application can use low VCC to make  $V_{BST}$  under recommend operation range.

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