## PWM Pre Driver for DC Fan Motor

## DESCRIPTION

EUM6867 is a pre-driver for single coil brushless DC motor, specially designed for 12 V power supply application. With an external PWM input signal, EUM6867 can control the speed of DC motor. It is an interface between a HALL IC and a single coil motor. The functions built in EUM6867 include soft start mode, PWM control mode, minimum speed mode, soft-switching time, fan tachometer, lock protection, auto restart, Hall Bias and current limiter.
PWM mode controls the external PMOS-NMOS FET in low noise and low vibration. With soft start function. EUM6867 can drive motor from slow speed to fast speed in a settable time by setting the external capacitor between SS and REG. Minimum speed mode makes the lowest speed of motor settable. Soft-switching time can cut the ineffective current when phase change is not set. If the motor is stalled by external force or obstacles, overdrive current may incur coil overheating. To prevent this, the lock protection circuit shuts down the external power devices for a few seconds after the motor is locked. Then auto restart circuit will resume to power up these devices. The protection and power up time are settable by an external capacitor. EUM6867 has FG output.

## FEATURES

- Single-phase full-wave Pre Driver
- PWM Control Mode
- Soft Start Function
- Soft-Switching
- Minimum Speed Settable
- Lock Protection and Auto Restart
- FG Output
- Current Limit Protection
- Available in TSSOP-16 Package
- RoHS Compliant and $100 \%$ Lead (Pb)-Free


## APPLICATIONS

- Personal Computer's Power Supply Radiation and CPU Cooler


## Application Circuit



Figure 1.

