Product Overview

LV8862JA: Single-phase FAN Motor Driver

For complete documentation, see the data sheet.

LV8862JA is a driver IC used for single-phase fan motor. High-efficiency and low-noise are realized by reducing reactive power using Silent PWM. This IC's feature is low on-resistance 0.6Ω & High-efficiency. Therefore, it is optimal for high power fan motor and home appliance equipment.

Features

- Single-phase full wave operation by Silent PWM drive
- Speed is controllable by PWM input
- Hall bias output pin
- Integrated Quick Start Circuit
- FG (rotation detection) / RD (lock detection) output pin (open drain output)
- Integrated current limiter circuit (limit at Io=500mA with RL=0.5Ω connection, limit value is determined based on Rf.)
- Integrated lock protector circuit and automatic recovery circuit
- Integrated thermal shut-down (TSD) circuit

Benefits

- Silent motor drive
- Simple control
- Reduce external parts
- Difinite booting motor
- Selectable output signal
- Safety control
- Safety control
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Applications

- Fan motor units

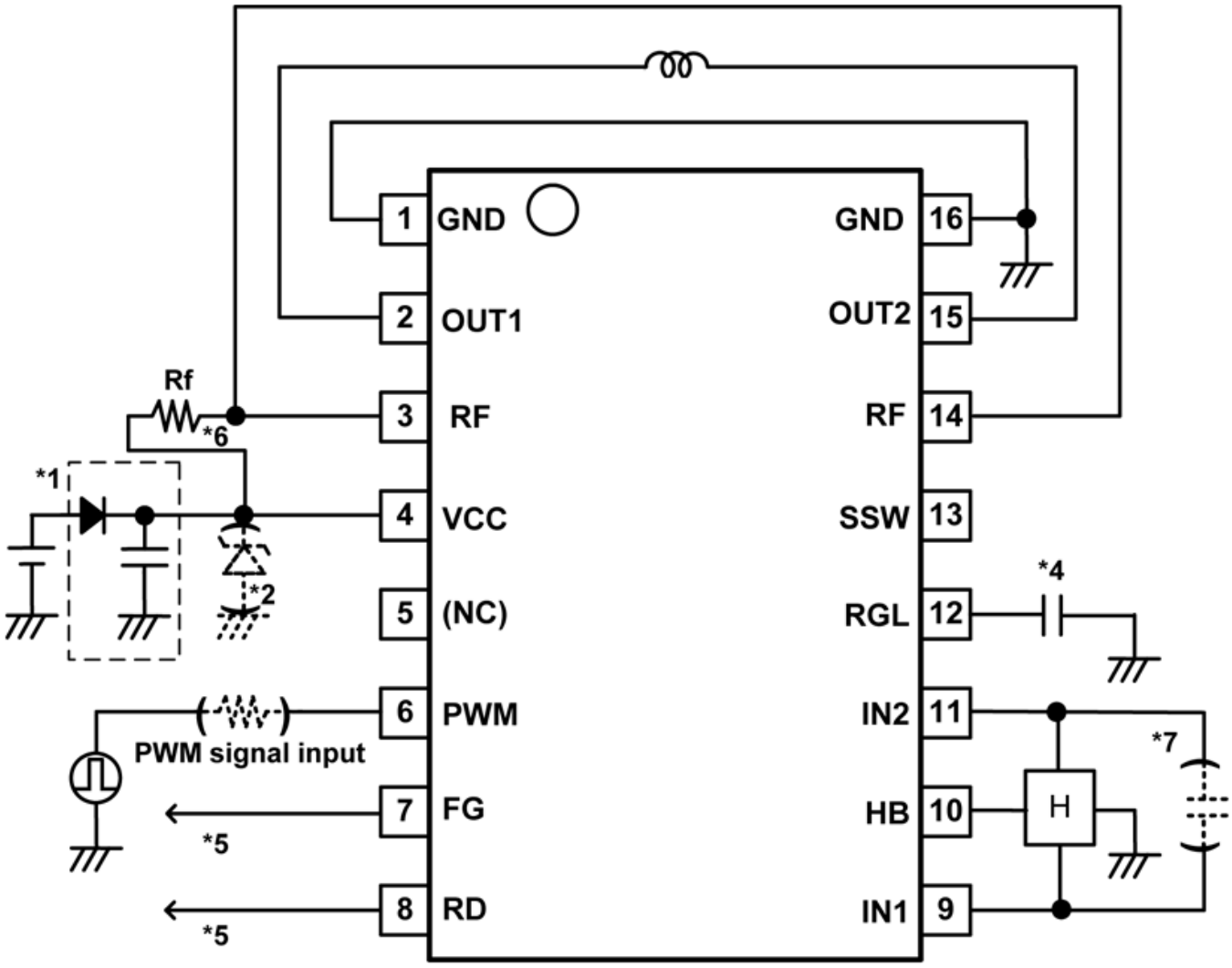
End Products

- Desk top PCs
- Refrigerator
- Projectors

Part Electrical Specifications

Product	Compliance	Status	Phase	V_M Min (V)	V_M Max (V)	V_{CC} Min (V)	V_{CC} Max (V)	I_O Max (A)	I_O Peak Max (A)	Control Type	Package Type
LV8862JA-AH	Pb-free Halide free	Active	1			3.6	16	1.5		PWM	SSOP-16

Application Diagram



*1 When diode Di is used to prevent destruction of IC from reverse connection, make sure to implement the large capacitor Cr to secure regenerative current route.

*2 If kickback at a phase change is greater, insert zener diode between GND and VCC or implement the larger capacitor between GND and VCC mentioned in *1.

*4 Make sure to implement enough capacitance 0.1uF or higher between RGL pin and GND pin for stable performance.

*5 FG pin and RD pin are open drain output. Keep the pins open when unused.

*6 The current limiter is activated when the current detection resistor voltage exceeds 250mV between RF and VCC. Where RL=0.5Ω, current limiter is activated at Io=500mA. Setting is made using Rf resistance.

*7 Hall element outputs stable hall signal with good temperature characteristic when it is biased with constant voltage from HB pin. If you wish to alleviate heating of IC, do not use HB pin. When you do not use this Pin (Pin HB) , pull down with resistor of around 10kΩ (recommended).
To defend signal against the noise, it is necessary to wire as short as possible from hall sensor to each pin and to connect the capacitor between IN1 and IN2. Value from 1,000pF to 10,000pF is recommended for the capacitor. But its value should be selected in consideration with the actual motor action.

Created on: 1/16/2019