

## Three-Phase Sensorless Fan Driver IC

### FEATURES AND BENEFITS

- AEC-Q100 qualified
- Speed curve configuration via EEPROM
- I<sup>2</sup>C serial port
- Sinusoidal modulation for reduced audible noise and low vibration
- Sensorless (no Hall sensors required)
- Low R<sub>DS(ON)</sub> power MOSFETs
- 3.3 V / 20 mA linear regulator
- PWM or analog speed input
- FG speed output
- Slew rate control
- Lock detection
- Soft start
- Low power standby mode
- Overcurrent protection
- Overvoltage protection

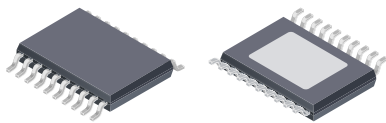
### DESCRIPTION

The A5947-B three phase motor driver IC incorporates sensorless sinusoidal drive to minimize vibration for a wide variety of fan applications. Sensorless control eliminates the requirement for Hall sensors.

A flexible closed-loop speed control system is integrated into the IC. EEPROM is used to tailor the common functions of the fan speed curve to a specific application. This eliminates the requirement for a microprocessor-based system and minimizes programming requirements.

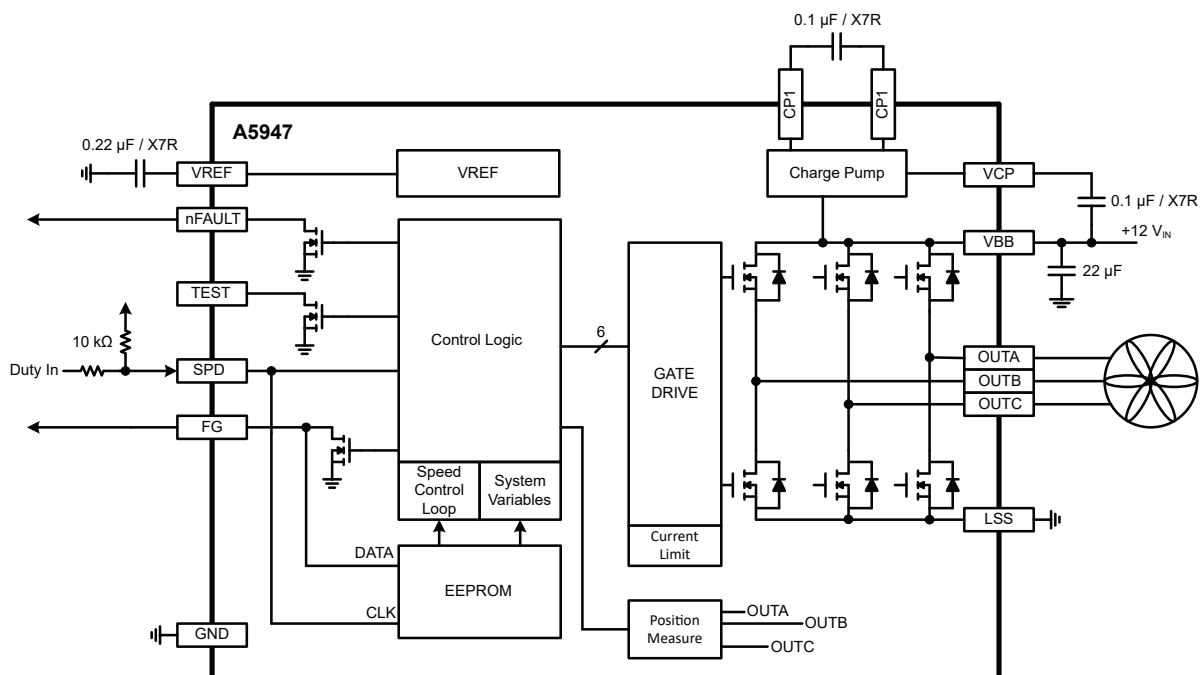
The A5947-B is available in a 20-lead TSSOP with exposed thermal pad (suffix LP).

### PACKAGE:



*Not to scale*

20-lead TSSOP  
with exposed thermal pad  
(LP package)



**Figure 1: Typical Application**