

**BTL Drive Single-phase Full-wave Fan Motor Driver****AM4951/R/2****Description**

The AM4951/R/2 series is a single-phase BTL output fan motor driver designed by bipolar process. This IC features high efficiency, silent operation and includes lock shutdown and automatic restart functions. When the motor is under lock condition, the lock shutdown function turns off the output current. When the lock condition is removed, the IC will restart automatically and allow DC fan to run. It is applied for high reliability and low noise application, such as personal computers, notebook, car audio, CPU cooling systems and power supplies in consumer electronics systems.

The AM4951/R series is available in MSOP-8 (12V application only) or PSOP-8 (24V application only) package. The AM4952 is available in MSOP-10 package.

Features

- BTL Output Single-phase Full-wave Linear Drive (Gain Resistor=1k to 360k Ω , Gain=51dB)
- Support Low-voltage Drive and Feature a Wide Usable Voltage Range (2.2V to 24V)
- Low Saturation Output (High Side and Low Side Saturation Voltage): $V_{SAT_TOTAL}=1.2V$ (typical, $I_{OUT}=250mA$)
- Built-in Lock Protection and Automatic Restart Circuits
- Built-in FG/RD Output
- Built-in Hall Sensor Bias (AM4952 Only, $V_{HB}=1.5V$)
- Thermal Protection Circuit
- Small-sized, High Thermal Capacity Package
- FG Output (AM4951), RD Output (AM4951R), FG and RD Output (AM4952)

Applications

- Notebook, Personal Computers
- Power Supplies in Consumer Electronics, Car Audio and Office Peripherals
- CPU Cooling Systems

Parametric Table

($V_{CC}=12V$, $T_A=25^{\circ}C$, unless otherwise noted.)

Supply Current 1 (mA) ($V_{CT}=L$)	6
Supply Current 2 (mA) ($V_{CT}=H$)	5
Out Low Saturation Voltage (V)	0.25
Out High Saturation Voltage (V)	0.95
Hall Input Sensitivity (mV)	7
FG Low Level Voltage (V) (For AM4951/2)	0.15
RD Low Level Voltage (V) (For AM4951R/2)	0.15
HB Voltage (V) (For AM4952)	1.5

Benefits

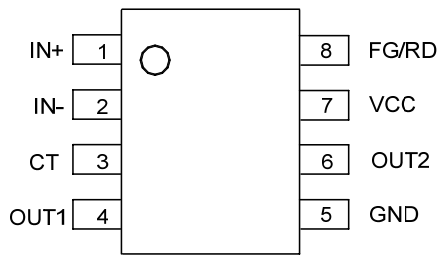
- Wide Operation Voltage Range
- Soft-switching for Low Noise
- Over Temperature Protection
- High ESD and Reliability Process

Additional Available Materials

- Samples
- Data Sheet
- Reliability Report
- ESD Report

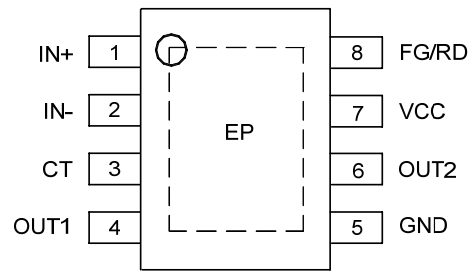
Pin Configuration

MM Package
(MSOP-8)



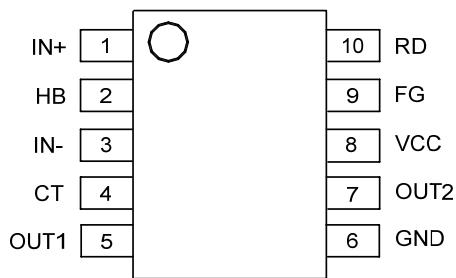
For AM4951/R 12V Application

MP Package
(PSOP-8)



For AM4951/R 24V Application

MM Package
(MSOP-10)



For AM4952

**BTL Drive Single-phase Full-wave Fan Motor Driver****AM4951/R/2****Ordering Information Example**

Package	Temperature Range	Output Signal	Part Number	Marking ID	Packing Type
MSOP-8	-40 to 105°C	FG	AM4951MM-G1	4951MM-G1	Tube
			AM4951MMTR-G1	4951MM-G1	Tape & Reel
		RD	AM4951RMM-G1	4951RMM-G1	Tube
			AM4951RMMTR-G1	4951RMM-G1	Tape & Reel
PSOP-8		FG	AM4951MP-G1	4951MP-G1	Tube
			AM4951MPTR-G1	4951MP-G1	Tape & Reel
		RD	AM4951RMP-G1	4951RMP-G1	Tube
			AM4951RMPTR-G1	4951RMP-G1	Tape & Reel
MSOP-10	FG & RD	AM4952MM-G1	4952MM-G1	Tube	
		AM4952MMTR-G1	4952MM-G1	Tape & Reel	

Detailed information please refer to the relevant datasheet.

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