

August 2009

FAN7318A LCD Backlight Inverter Drive IC

Features

- High-Efficiency, Single-Stage Power Conversion
- Wide Input Voltage Range: 6V to 30V
- Backlight Lamp Ballast and Soft Dimming
- Minimal External Components Required
- Precision Voltage Reference Trimmed to 2%
- Half-Bridge Topology
- Soft-Start
- PWM Control at Fixed Frequency
- Analog Dimming Function
- Burst Dimming Function
- Programmable Striking Frequency
- Open-Lamp Protection (OLP)
- Open-Lamp Regulation (OLR)
- Over-Voltage Protection (OVP)
- Short-Lamp Protection (SLP)
- CMP-High Protection (CHP)
- Thermal Shutdown (TSD)
- 16-Pin SOIC Package

Applications

- LCD TV
- LCD Monitor

Description

The FAN7318A is a LCD backlight inverter drive IC that controls P-N half-bridge topology.

The FAN7318A provides a low-cost solution and reduces external components by integrating proprietary wave rectifiers for open-lamp protection and regulation. The operating voltage range is wide, so an external regulator isn't necessary to supply voltage to the IC.

The FAN7318A provides various protections, such as open-lamp regulation, over-voltage protection, open-lamp protection, short-lamp protection, and CMP-HIGH protection, to increase the system reliability. The FAN7318A provides burst dimming and analog dimming.

The FAN7318A is available in a 16-SOIC package.



Ordering Information

Part Number	Operating Temperature	Package	© Eco Status	Packing Method
FAN7318AM	-25 to +85°C	16-Lead, Small Outline Integrated Circuit (SOIC)	RoHS	Rail
FAN7318AMX	-25 to +65 C			Tape & Reel

For Fairchild's definition of Eco Status, please visit: http://www.fairchildsemi.com/company/green/rohs_green.html.

Protected under U.S. patent no. 5,652,479.

Typical Application Circuit (LCD Backlight Inverter)

Application	Device	Input Voltage Range	Number of Lamps
22-Inch LCD Monitor	FAN7318A	15V±10%	2

1. Features

- High-Efficiency, Single-Stage Power Conversion
- P-N Half-Bridge Topology
- Reduces Required External Components
- Enhanced System Reliability through Protection Functions

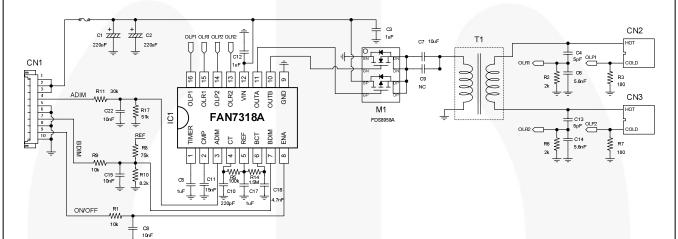


Figure 64. Typical Application Circuit

Physical Dimensions 10.00 9.80 8.89 16 В 4.00 3.80 6.00 5.6 8 **PIN ONE** 0.51 **INDICATOR** 1.27 1.27 0.65 0.35 (0.30)⊕ 0.25 M C B A LAND PATTERN RECOMMENDATION 1.75 MAX SEE DETAIL A 1.50 1.25 0.25 0.25 0.10 0.19 0.50 X 45° NOTES: UNLESS OTHERWISE SPECIFIED (R0.10) **GAGE PLANE** A) THIS PACKAGE CONFORMS TO JEDEC MS-012, VARIATION AC, ISSUE C. (R0.10)B) ALL DIMENSIONS ARE IN MILLIMETERS. C) DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD 0.36 8° FLASH AND TIE BAR PROTRUSIONS CONFORMS TO ASME Y14.5M-1994 0° LANDPATTERN STANDARD: SOIC127P600X175-16AM F) DRAWING FILE NAME: M16AREV12. **SEATING PLANE** 0.90 0.50 (1.04)**DETAIL A**

Figure 65. -Lead, Small Outline Integrated Circuit (SOIC) Package

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Definition of Terms

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Obsolete	Not In Production	Datasheet contains specifications on a product that is discontinued by Fairchild Semiconductor. The datasheet is for reference information only.
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