

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.

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

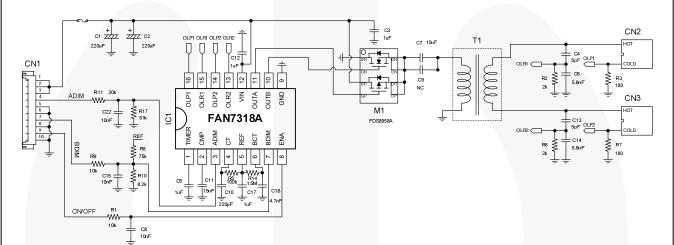


Figure 64. Typical Application Circuit

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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PRODUCT STATUS DEFINITIONS

Definition of Torms

Definition of Terms				
Datasheet Identification	Product Status	Definition		
Advance Information	Formative / In Design	Datasheet contains the design specifications for product development. Specifications may change in any manner without notice.		
Preliminary	First Production	Datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.		
No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.		
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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