

August 2009

# FAN7318B 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
- Open-Lamp Regulation
- Over-Voltage Protection
- Short-Lamp Protection
- CMP-High ProtectionThermal Shutdown
- 20-Pin SOIC

# **Applications**

- LCD TV
- LCD Monitor

# **Description**

The FAN7318B is a LCD backlight inverter drive IC that controls P-N half-bridge topology.

The FAN7318B provides a low-cost solution and reduces external components by integrating proprietary wave rectifiers for open-lamp protection and regulation. The operating voltage range of the FAN7318B is wide, so an external regulator isn't necessary to supply the voltage to the IC.

The FAN7318B provides various protections, such as open-lamp regulation, over-voltage protection, open-lamp protection, short-Lamp protection, CMP-high protection, to increase the system reliability. The FAN7318B provides burst dimming and analog dimming.

The FAN7318B is available in a 20-SOIC package.



# **Ordering Information**

Part Number	Operating Temperature	Package	© Eco Status	Packing Method
FAN7318BM	-25 to +85°C	20-Lead, Small Outline Integrated Circuit (SOIC)	RoHS	Rail
FAN7318BMX	-25 to +65 C			Tape & Reel

For Fairchild's definition of Eco Status, please visit: <a href="http://www.fairchildsemi.com/company/green/rohs\_green.html">http://www.fairchildsemi.com/company/green/rohs\_green.html</a>.

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	FAN7318B	15V±10%	4

# 1. Features

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

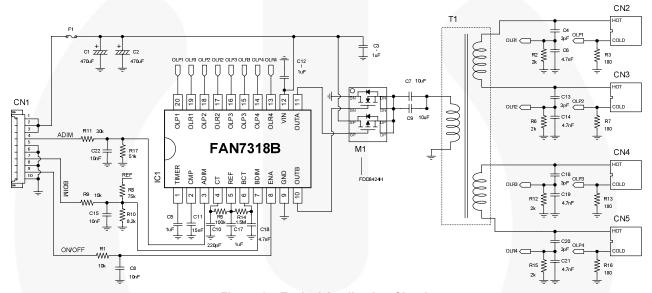


Figure 64. Typical Application Circuit

# **Physical Dimensions** 13.00 12.60 11.43 В 9.50 10.65 7.60 10.00 7.40 0.51 PIN ONE 1.27 0.35 **INDICATOR** LAND PATTERN RECOMMENDATION 2.65 MAX SEE DETAIL A 0.33 С □ 0.10 C 0.30 0.10 0.75 0.25 × 45° SEATING PLANE NOTES: UNLESS OTHERWISE SPECIFIED (R0.10) A) THIS PACKAGE CONFORMS TO JEDEC **GAGE PLANE** MS-013, VARIATION AC, ISSUE E (R0.10)B) ALL DIMENSIONS ARE IN MILLIMETERS. 0.25 C) DIMENSIONS DO NOT INCLUDE MOLD FLASH OR BURRS. D) CONFORMS TO ASME Y14.5M-1994 0.40 SEATING PLANE E) LANDPATTERN STANDARD: SOIC127P1030X265-20L

Figure 65. 20-Lead, Small Outline Integrated Circuit (SOIC) Package

F) DRAWING FILENAME: MKT-M20BREV3

Package drawings are provided as a service to customers considering Fairchild components. Drawings may change in any manner without notice. Please note the revision and/or date on the drawing and contact a Fairchild Semiconductor representative to verify or obtain the most recent revision. Package specifications do not expand the terms of Fairchild's worldwide terms and conditions, specifically the warranty therein, which covers Fairchild products.

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(1.40)

**DETAIL A** 





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### Definition of Torms

Definition of Terms				
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