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June 2011

# 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 Protection
- Thermal Shutdown20-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	Packing Method
FAN7318BM	-25 to +85°C	20-Lead, Small Outline Integrated Circuit (SOIC)	Rail
FAN7318BMX	-20 to +65 C		Tape & Reel

# **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

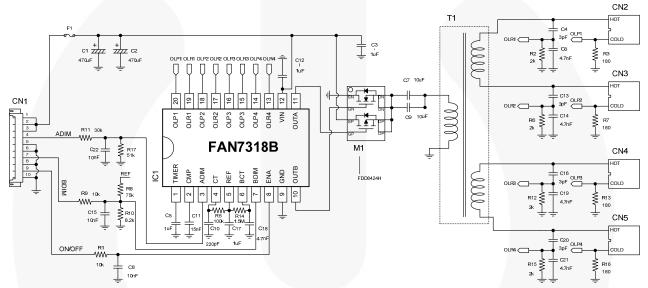


Figure 64. Typical Application Circuit

# **Physical Dimensions** 13.00 12.60 11.43 9.50 10.65 7.60 10.00 7.40 0.51 PIN ONE 1.27 **INDICATOR** ⊕ 0.25 M C B A LAND PATTERN RECOMMENDATION 2.65 MAX SEE DETAIL A 0.33 0.20 △ 0.10 C 0.30 0.10 0.75 0.25 X 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.

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

D) CONFORMS TO ASME Y14.5M-1994

F) DRAWING FILENAME: MKT-M20BREV3

E) LANDPATTERN STANDARD: SOIC127P1030X265-20L

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SEATING PLANE

DETAIL A

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Preliminary	Preliminary  First Production  Datasheet contains preliminary data; supplementary data will be published at a later date. Fairch Semiconductor reserves the right to make changes at any time without notice to improve design	
No Identification Needed	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 The datasheet is for reference information only.		Datasheet contains specifications on a product that is discontinued by Fairchild Semiconductor. The datasheet is for reference information only.

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