

# 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

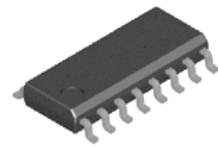
### Description

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				Tape & Reel

 For Fairchild's definition of Eco Status, please visit: [http://www.fairchildsemi.com/company/green/rohs\\_green.html](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

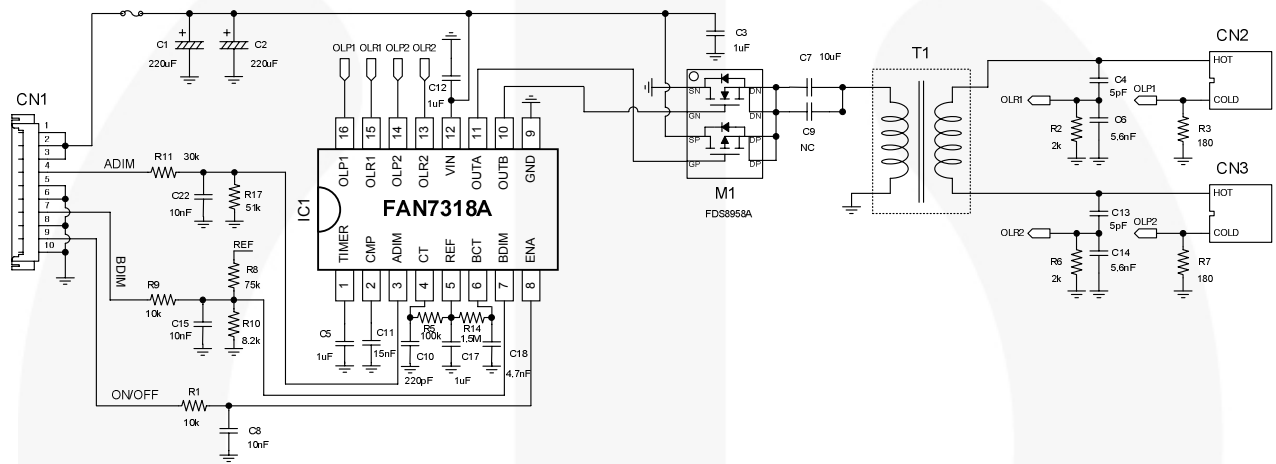


Figure 64. Typical Application Circuit

Physical Dimensions

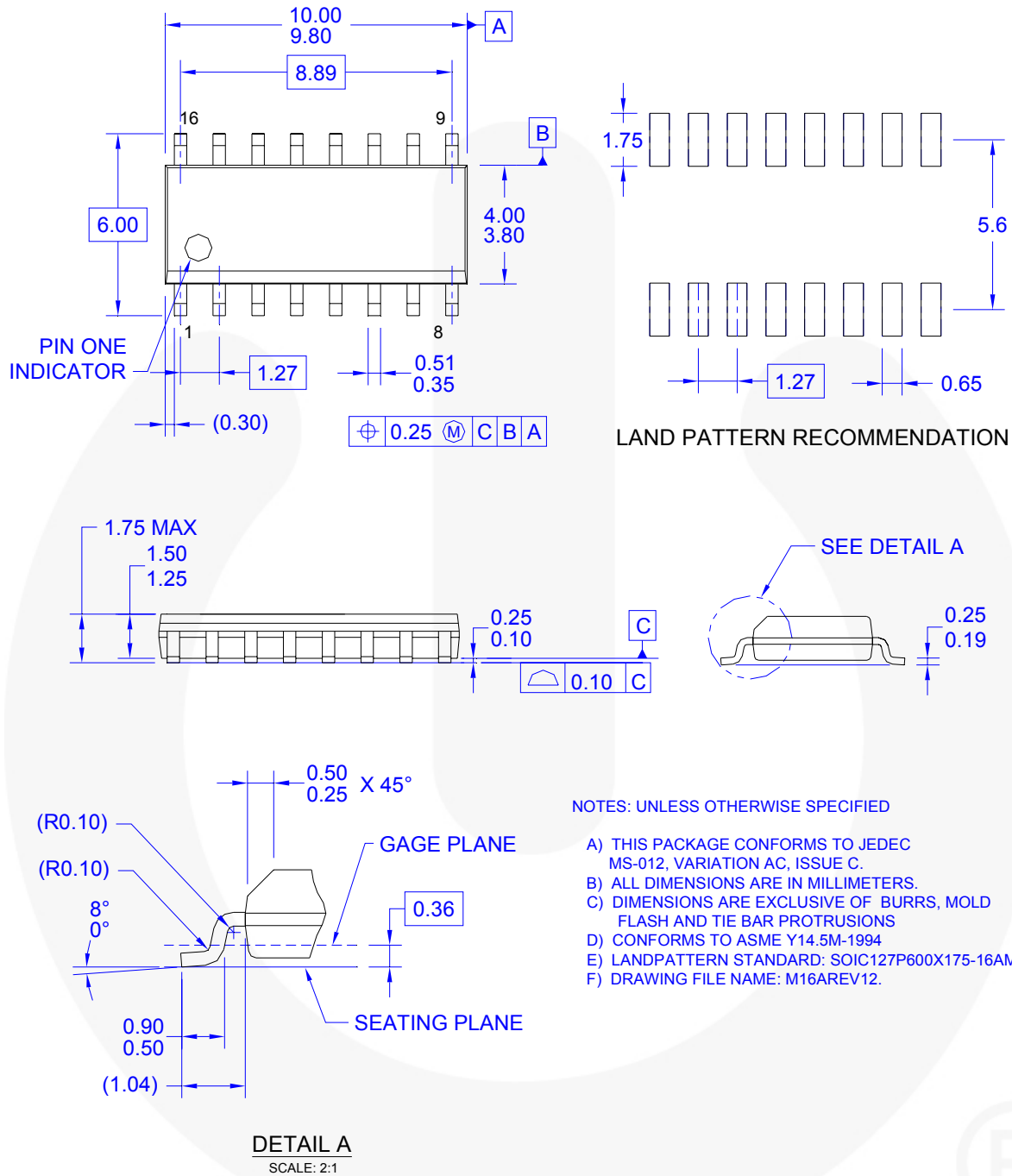


Figure 65. -Lead, Small Outline Integrated Circuit (SOIC) Package







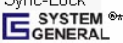
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- |                                                                                   |                                                                                   |                                                                                   |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| AccuPower™                                                                        | FPST™                                                                             | PowerTrench®                                                                      | The Power Franchise®                                                                |
| Auto-SPM™                                                                         | F-PFST™                                                                           | PowerXS™                                                                          |  |
| Build it Now™                                                                     | FRFET®                                                                            | Programmable Active Droop™                                                        | TinyBoost™                                                                          |
| CorePLUS™                                                                         | Global Power Resource™                                                            | QFET®                                                                             | TinyBuck™                                                                           |
| CorePOWER™                                                                        | Green FPST™                                                                       | QS™                                                                               | TinyCalc™                                                                           |
| CROSSVOLT™                                                                        | Green FPST™ e-Series™                                                             | Quiet Series™                                                                     | TinyLogic®                                                                          |
| CTL™                                                                              | Gmax™                                                                             | RapidConfigure™                                                                   | TINYOPTO™                                                                           |
| Current Transfer Logic™                                                           | GTO™                                                                              |  | TinyPower™                                                                          |
| EcoSPARK®                                                                         | IntelliMAX™                                                                       | Saving our world, 1mW/W/kW at a time™                                             | TinyPWM™                                                                            |
| EfficientMax™                                                                     | ISOPLANAR™                                                                        | SignalWise™                                                                       | TinyWire™                                                                           |
| EZSWTCH™                                                                          | MegaBuck™                                                                         | SmartMax™                                                                         | TriFault Detect™                                                                    |
|  | MICROCOUPLER™                                                                     | SMART START™                                                                      | TRUECURRENT™                                                                        |
|  | MicroFET™                                                                         | SPM®                                                                              | μSerDes™                                                                            |
| Fairchild®                                                                        | MicroPak™                                                                         | STEALTH™                                                                          |  |
| Fairchild Semiconductor®                                                          | MillerDrive™                                                                      | SuperFET™                                                                         | UHC®                                                                                |
| FACT Quiet Series™                                                                | MotionMax™                                                                        | SuperSOT™.3                                                                       | Ultra FRFET™                                                                        |
| FACT®                                                                             | Motion-SPM™                                                                       | SuperSOT™.6                                                                       | UniFET™                                                                             |
| FAST®                                                                             | OPTOLOGIC®                                                                        | SuperSOT™.8                                                                       | VCM™                                                                                |
| FastvCore™                                                                        | OPTOPLANAR®                                                                       | SupreMOS™                                                                         | VisualMax™                                                                          |
| FETBench™                                                                         |  | SyncFET™                                                                          | XS™                                                                                 |
| FlashWriter®                                                                      | PDP SPM™                                                                          | Sync-Lock™                                                                        |                                                                                     |
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Rev. 142