

# FAN7314A — LCD Backlight Inverter Drive IC

## Features

- High-Efficiency Single-Stage Power Conversion
- Wide Input Voltage Range: 6V to 25.5V
- Backlight Lamp Ballast and Soft Dimming
- Minimal Required External Components
- Precision Voltage Reference Trimmed to 2%
- ZVS Half-Bridge Topology
- Soft-Start
- PWM Control at Fixed Frequency
- Analog and Burst Dimming Function
- Programmable Striking Frequency
- Open-Lamp Protection
- Open-Lamp Regulation
- Thermal Shutdown
- 20-Pin SOIC

## Applications

- LCD TV
- LCD Monitor

## Description


The FAN7314A provides all the control functions for a series parallel resonant converter as well as a pulse width modulation (PWM) controller to develop a supply voltage. Typical operating frequency range is between 30kHz and 250kHz, depending on the CCFL and the transformer's characteristics.


The FAN7314A is available in a 20-SOIC package.

**20-SOIC**



## Ordering Information

Part Number	Package	Operating Temperature	 Eco Status	Packing Method
FAN7314AM	20-SOIC	-25 to +85°C	RoHS	RAIL
FAN7314AMX	20-SOIC	-25 to +85°C	RoHS	TAPE & REEL

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

Protected under U.S. patent nos. 5,652,479.

## Important Note:

For complete performance specifications, please contact one of the following:

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## Typical Application Circuit (LCD Backlight Inverter)

Application	Device	Input Voltage Range	Number of lamps
22-Inch LCD Monitor	FAN7314A	22V±5%	4

### 1. Features

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

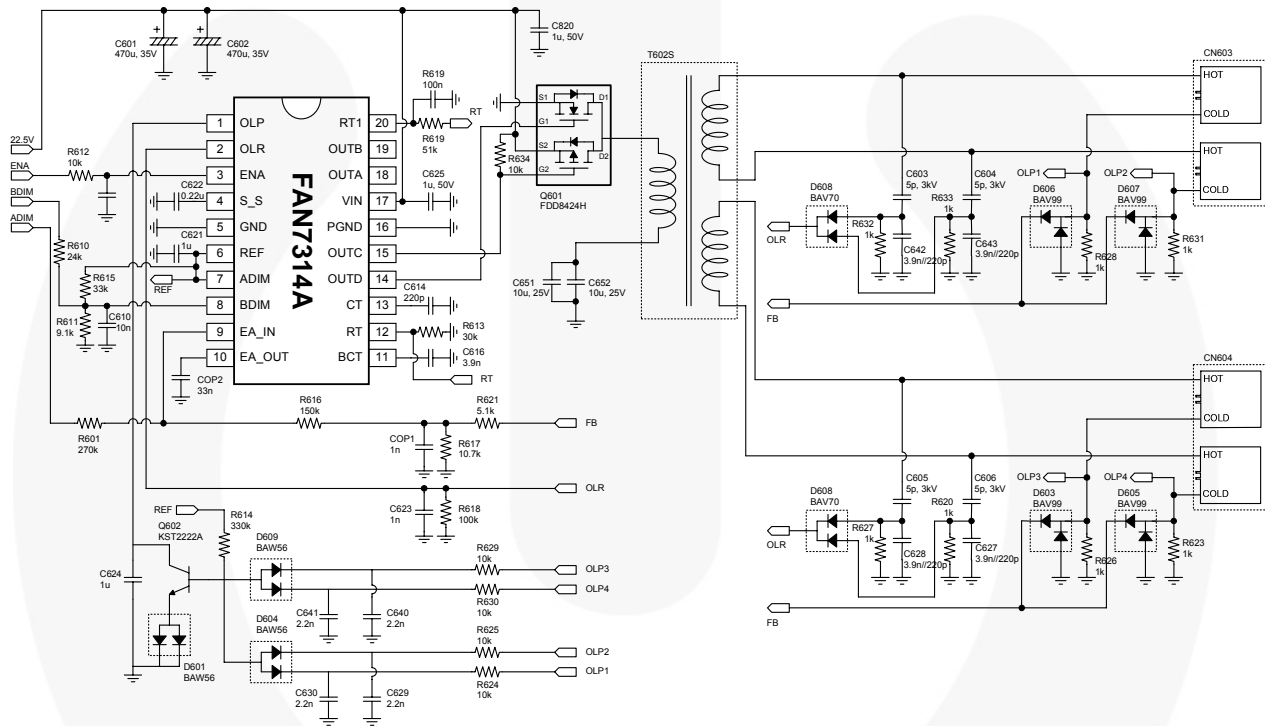


Figure 9. Typical Application Circuit

### 2. Transformer Specifications

- Supported by Clover Hitech (<http://www.cloverhitech.com>)
- PART NO : EEL-22W

Pin No.	Wire	Turns	Inductance	Leakage Inductance	Remarks
2 → 7	UTSC 0.1×12	19	83.0μH	16μH	1kHz, 1V
3 → 6					
1 → 8	1 UEW 0.04Ω	2300	1.4H	280mH	
4 → 5					



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| CROSSVOLT™  | Global Power Resource™ | Programmable Active Droop™  | TinyBuck™   |
| CTL™  | Green FPST™            | QFET®   | TinyLogic™  |
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| FastvCore™  | OPTOLOGIC®             | SuperSOT™.8   |   |
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|   |                        | SyncFET™  |   |
|   |                        |  |   |

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