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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

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



Applications

- LCD TV
- LCD Monitor

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.

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

Important Note:

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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

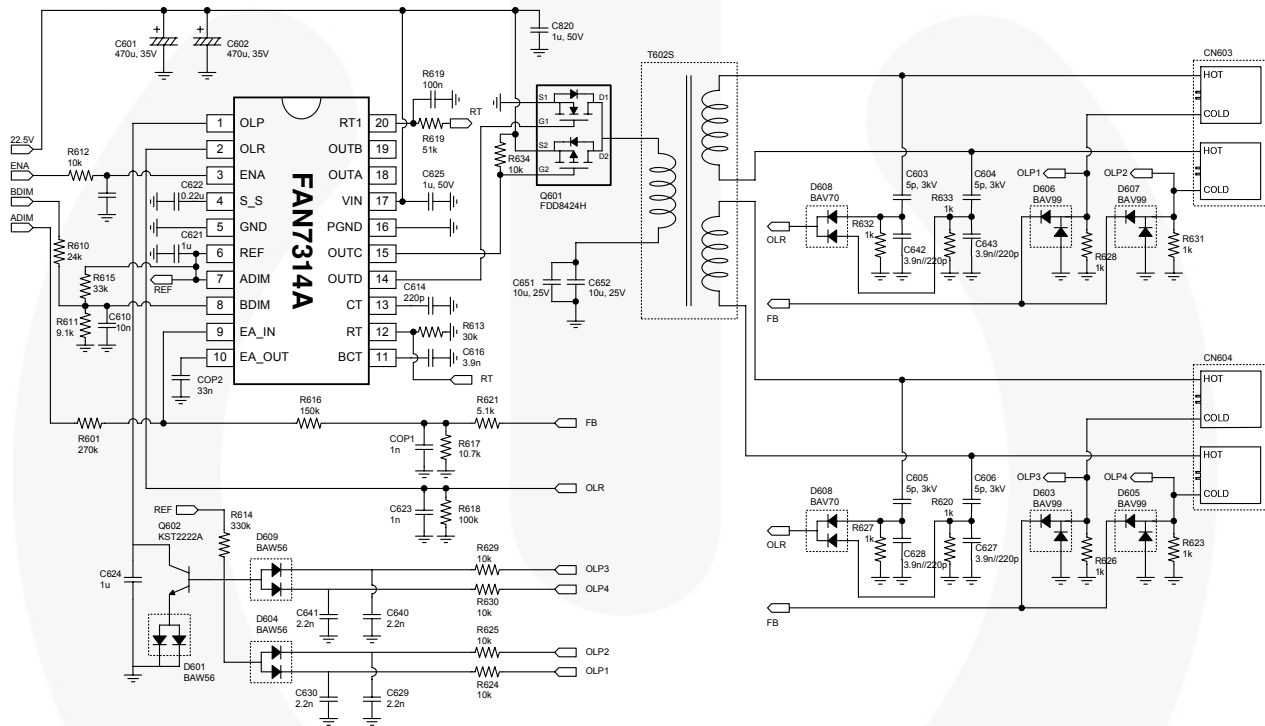


Figure 9. Typical Application Circuit

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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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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