Product Overview

FAN7621: PFM Controller for Half-Bridge Resonant Converter

For complete documentation, see the data sheet.

The FAN7621 is a pulse frequency modulation controller for high-efficiency half-bridge resonant converters. Offering everything necessary to build a reliable and robust resonant converter, the FAN7621 simplifies designs and improves productivity, while improving performance. The FAN7621 includes a high-side gate-drive circuit, an accurate current controlled oscillator, frequency limit circuit, soft-start, and built-in protection functions. The high-side gate-drive circuit has a common-mode noise cancellation capability, which guarantees stable operation with excellent noise immunity. Using the zero-voltage-switching (ZVS) technique dramatically reduces the switching losses and efficiency is significantly improved. The ZVS also reduces the switching noise noticeably, which allows a small-sized Electromagnetic Interference (EMI) filter. The FAN7621 can be applied to various resonant converter topologies; such as series resonant, parallel resonant, and LLC resonant converters.

Features

- Variable Frequency Control with 50% Duty Cycle for Half-bridge Resonant Converter Topology
- High Efficiency through Zero Voltage Switching (ZVS)
- Fixed Dead Time (350ns)
- Up to 300kHz Operating Frequency
- Pulse Skipping for Frequency Limit (Programmable) at Light-Load Condition
- Remote On/Off Control using CON Pin

Applications

- PDP TV
- LCD TV
- Desktop PC
- Server
- Video Game Console

Part Electrical Specifications

<table>
<thead>
<tr>
<th>Product</th>
<th>Pricing ($/Unit)</th>
<th>Compliance</th>
<th>Status</th>
<th>Topology</th>
<th>Control Mode</th>
<th>fsw Typ (kHz)</th>
<th>Stand-by Mode</th>
<th>UVLO (V)</th>
<th>Short Circuit Protection</th>
<th>Latch</th>
<th>Soft Start</th>
<th>VCC Max (V)</th>
<th>Drive Cap. (mA)</th>
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For more information please contact your local sales support at www.onsemi.com.

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