

AS1340

50V, Micropower, DC-DC Boost Converter

Product Brief

1 General Description

The AS1340 boost converter contains a 1.4A internal switch in a tiny TDFN-8 3x3mm package. The device operates from a 2.7 to 5.5V supply, and can boost voltages up to 50V output.

The output voltage can easily be adjusted by an external resistor divider.

The AS1340 uses a unique control scheme providing the highest efficiency over a wide range of load conditions. An internal 1.4A MOSFET reduces external component count, and a fixed high switching frequency (1MHz) allows for tiny surface-mount components.

The AS1340 also features power-OK circuitry which monitors the output voltage.

Additionally the AS1340 features a low quiescent supply current and a shutdown mode to save power. During shutdown an output disconnect switch separates the input from the output.

The AS1340 is ideal for LCD or OLED panels with low current requirements and can also be used in a wide range of other applications.

The device is available in a low-profile TDFN-8 3x3mm package.

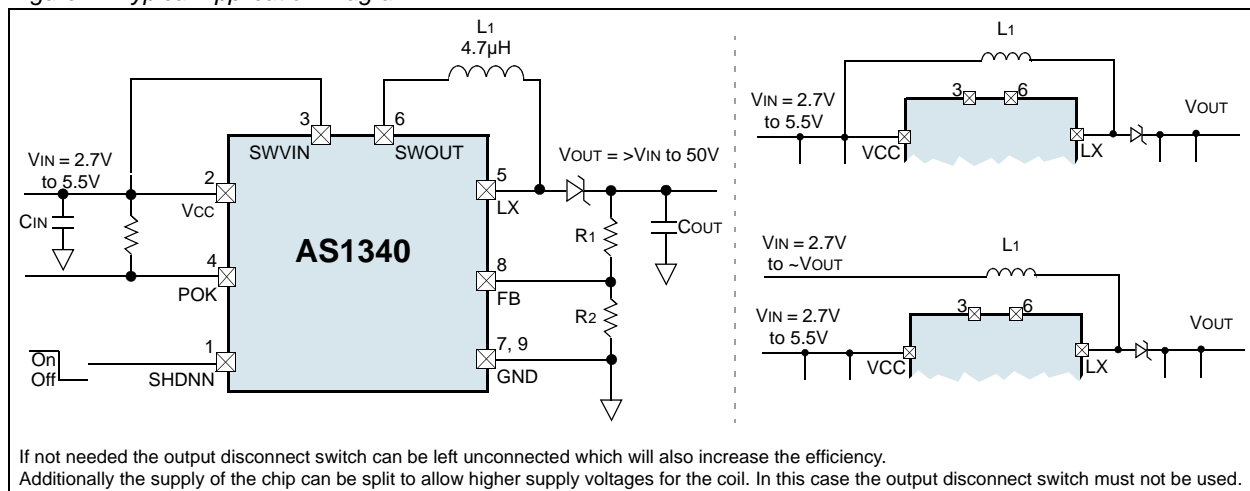
2 Key Features

- 2.7V to 50V Adjustable Output Voltage
- 2.7V to 50V Input Voltage Range
- 2.7V to 5.5V Supply Voltage Range
- High Output Currents:
 - 100mA @ 12V from 3.3V V_{IN}
 - 50mA @ 24V from 3.3V V_{IN}
 - 30mA @ 36V from 3.3V V_{IN}
- Efficiency: Up to 90%
- Switching Frequency: 1MHz
- Output Disconnect
- Power-OK Output
- Operating Supply Current: 30 μ A
- Shutdown Current: 0.1 μ A
- TDFN-8 3x3mm Package

3 Applications

The device is ideal for OLED display power supply, LCD bias generators, mobile/cordless phones, palmtop computers, PDAs and organizers, handy terminals or any other portable, battery-powered device.

Figure 1. Typical Application Diagram



Copyrights

Copyright © 1997-2007, austriamicrosystems AG, Schloss Premstaetten, 8141 Unterpremstaetten, Austria-Europe. Trademarks Registered ®. All rights reserved. The material herein may not be reproduced, adapted, merged, translated, stored, or used without the prior written consent of the copyright owner.

All products and companies mentioned are trademarks or registered trademarks of their respective companies.

Disclaimer

Devices sold by austriamicrosystems AG are covered by the warranty and patent indemnification provisions appearing in its Term of Sale. austriamicrosystems AG makes no warranty, express, statutory, implied, or by description regarding the information set forth herein or regarding the freedom of the described devices from patent infringement. austriamicrosystems AG reserves the right to change specifications and prices at any time and without notice. Therefore, prior to designing this product into a system, it is necessary to check with austriamicrosystems AG for current information. This product is intended for use in normal commercial applications. Applications requiring extended temperature range, unusual environmental requirements, or high reliability applications, such as military, medical life-support or life-sustaining equipment are specifically not recommended without additional processing by austriamicrosystems AG for each application. For shipments of less than 100 parts the manufacturing flow might show deviations from the standard production flow, such as test flow or test location.

The information furnished here by austriamicrosystems AG is believed to be correct and accurate. However, austriamicrosystems AG shall not be liable to recipient or any third party for any damages, including but not limited to personal injury, property damage, loss of profits, loss of use, interruption of business or indirect, special, incidental or consequential damages, of any kind, in connection with or arising out of the furnishing, performance or use of the technical data herein. No obligation or liability to recipient or any third party shall arise or flow out of austriamicrosystems AG rendering of technical or other services.



Contact Information

Headquarters

austriamicrosystems AG
A-8141 Schloss Premstaetten, Austria

Tel: +43 (0) 3136 500 0
Fax: +43 (0) 3136 525 01

For Sales Offices, Distributors and Representatives, please visit:

<http://www.austriamicrosystems.com/contact>