



ZHEJIANG UNIÜ-NE Technology CO., LTD

浙江宇力微新能源科技有限公司



U1319 Data Sheet

V 1.1

版权归浙江宇力微新能源科技有限公司

16V 3A 500KHz ECOT Force-CCM Sync Step-Down Regulator

General Description

The U1319 is a high frequency, synchronous, rectified, step-down, switch-mode converter with internal power MOSFETs. It offers a very compact solution to provide a 3A max output current over a wide input supply range, with excellent load and line regulation. ECOT control operation provides very fast transient response and easy loop design as well as very tight output regulation.

The U1319 requires a minimal number of readily available, external components and is available in a space saving SOT23-6 package.

Key Features

- Wide 4.5V to 16V Operating Input Range
- 3A MAX Output Current
- 500KHz Switching Frequency
- ECOT Mode Control with Fast Transient Response
- Built-in Over Current Limit
- Built-in Over Voltage Protection
- Continuous Conduction Mode (CCM)
- Internal Soft-Start
- 70mΩ/50mΩ Low RDS(ON) Internal Power MOSFETs
- Output Adjustable from 0.6V
- No Schottky Diode Required
- Short Protection with Hiccup-Mode
- Integrated internal compensation
- Thermal Shutdown
- Available in SOT23-6 Package
- -40°C to +85°C Temperature Range

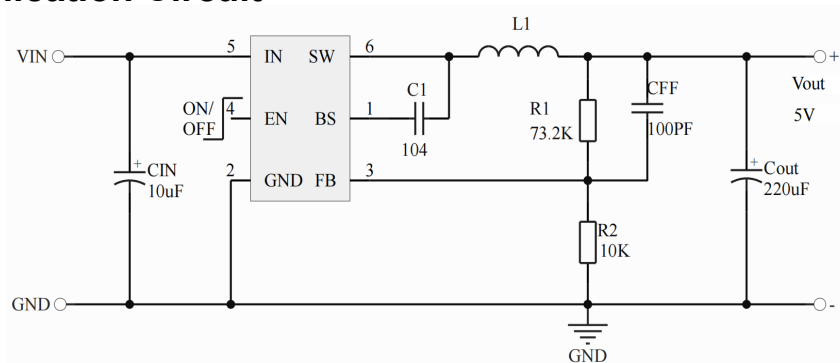
Packages



Applications

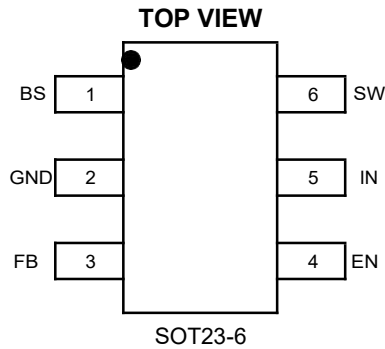
- Digital Set-top Box (STB)
- Tablet Personal Computer (Pad)
- Flat-Panel Television and Monitor
- Wi-Fi Router / AP
- Digital Video Recorder (DVR)
- Portable Media Player (PMP)
- Cable Modem / XDSL
- General Purpose

Typical Application Circuit



Basic Application Circuit

Pin Description



Pin Description

Pin	Name	Function
1	BS	Bootstrap. A capacitor connected between SW and BST pins is required to form a floating supply across the high-side switch driver.
2	GND	GROUND Pin
3	FB	Adjustable Version Feedback input. Connect FB to the center point of the external resistor divider
4	EN	Drive this pin to a logic-high to enable the IC. Drive to a logic-low to disable the IC and enter micro-power shutdown mode.
5	IN	Power Supply Pin
6	SW	Switching Pin

Order Information ⁽¹⁾

Model	Description	Package	T/R Qty
U1319	U1319 ECOT Force-CCM Buck, 4.5-16V, 3A, 500KHz, VFB 0.6V, SOT23-6	SOT23-6	3000PCS

Note (1): All UNICHIP parts are Pb-Free and adhere to the RoHS directive.

1.版本记录

DATE	REV.	DESCRIPTION
2018/04/19	1.0	First Release
2021/05/21	1.1	Layout adjustment

2.免责声明

浙江宇力微新能源科技有限公司保留对本文档的更改和解释权力，不另行通知！产品不断提升，以追求高品质、稳定性强、可靠性高、环保、节能、高效为目标，我司将竭诚为客户提供性价比高的系统开发方案、技术支持等更优秀的服务。量产方案需使用方自行验证并自担所有批量风险责任。未经我司授权，该文件不得私自复制和修改。

版权所有 浙江宇力微新能源科技有限公司/绍兴宇力半导体有限公司

3.联系我们

浙江宇力微新能源科技有限公司

总部地址：绍兴市越城区斗门街道袍渚路25号中节能科创园45幢4/5楼

电话：0575-85087896（研发部）

传真：0575-88125157

E-mail: htw@uni-semic.com

无锡地址：无锡市新吴区纺城大道299号深港都会广场9-1401

电话：0510-85297939

E-mail: zh@uni-semic.com

深圳地址：深圳市宝安区航城街道三围社区南昌路上合工业园B2栋501

电话：0755-84510976

E-mail: htw@uni-semic.com