MP1584EN-LF-Z SOIC-8 switch regulator chip



Produktkode: 843aa
Tilgjengelighet: 25
Weight: 0.00kg

Pris: kr. 35,00

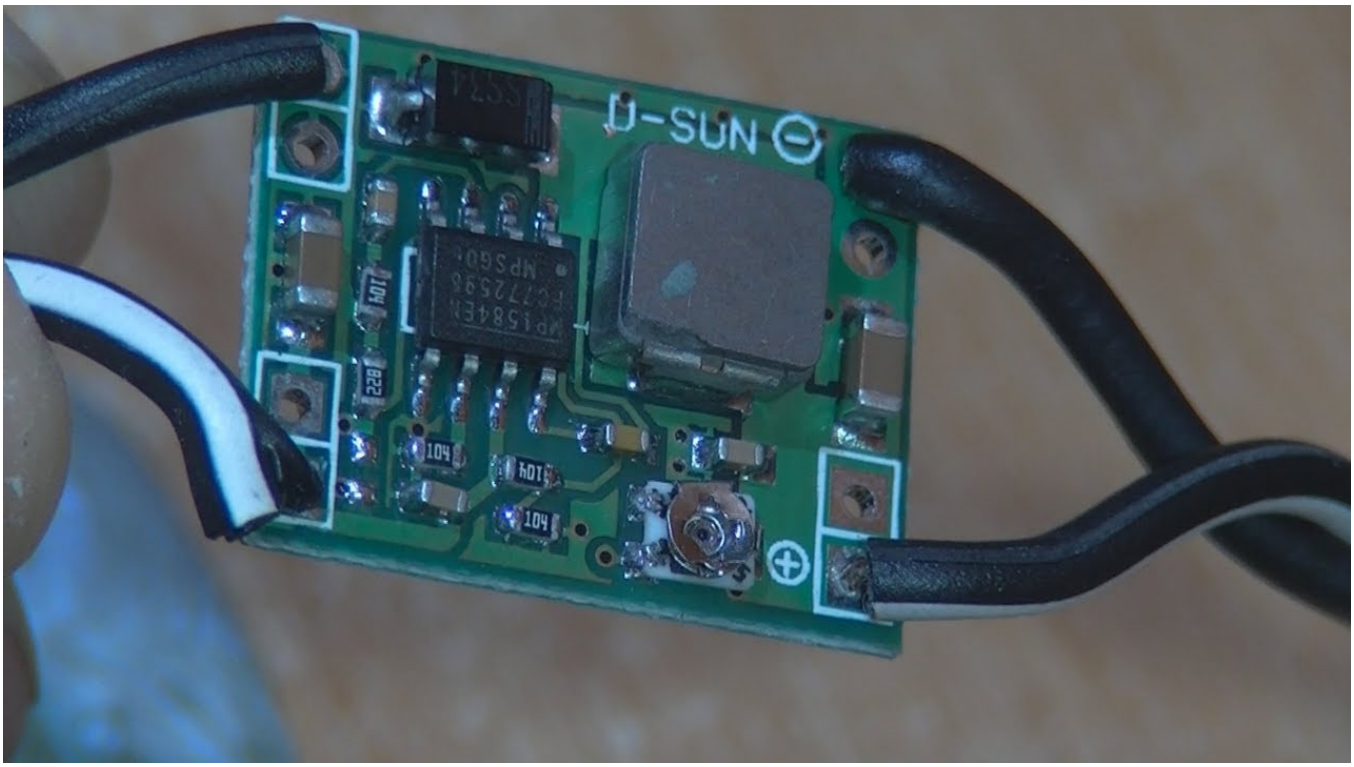
Kort beskrivelse
MP1584EN-LF-Z SOIC-8 switch regulator chip 3A 1.5MHz 28V

Beskrivelse



8 Terminals 8-Pin DC DC Voltage Regulator SWITCHING REGULATOR 1 Outputs 100kHz~1.5MHz Tape & Reel (TR) 8-SOIC (0.154, 3.90mm Width) Exposed Pad

MP1584EN is a high frequency step-down converter with an integrated internal high-side high voltage power MOSFET. This article mainly convers pinout, datasheet, specifications, applications and other details about MP1584EN.

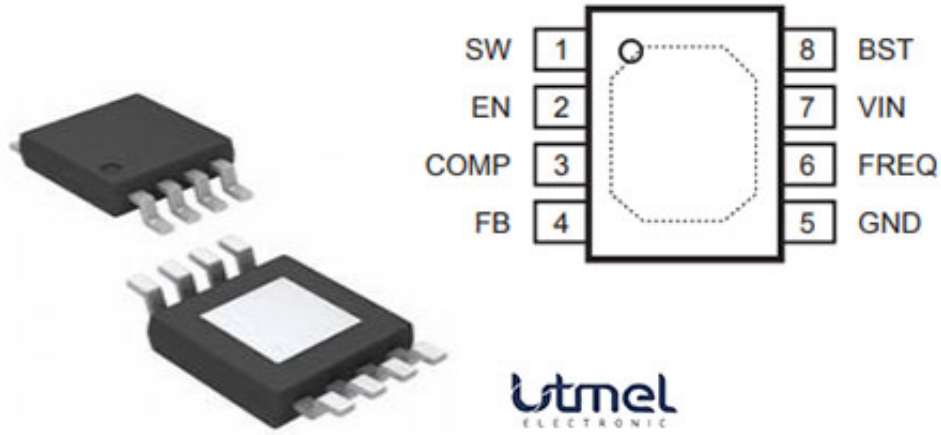


Buck 3A DC Converter Step Down Module

Catalog

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- Datasheet PDF

MP1584EN Pinout



MP1584EN Pinout

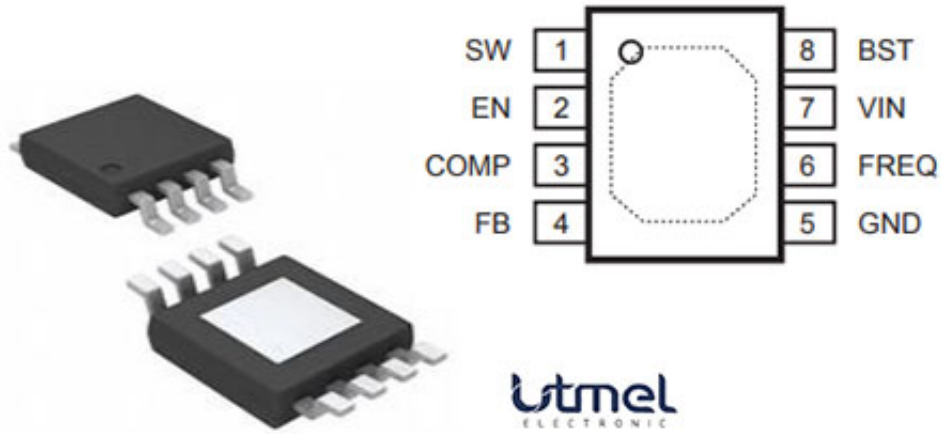
SOIC Pin #	Name	Description
1	SW	Switch Node. This is the output from the high-side switch. A low forward drop Schottky diode to ground is required. The diode must be close to the SW pins to reduce switching spikes.
2	EN	Enable Input. Pulling this pin below the specified threshold shuts the chip down. Pulling it up above the specified threshold or leaving it floating enables the chip.
3	COMP	Compensation. This node is the output of the error amplifier. Control loop frequency compensation is applied to this pin.
4	FB	Feedback. This is the input to the error amplifier. The output voltage is set by a resistive divider connected between the output and GND which scales down V_{OUT} equal to the internal +0.8V reference.
5	GND Exposed Pad	Ground. It should be connected as close as possible to the output capacitor to shorten the high current switch paths. Connect exposed pad to GND plane for optimal thermal performance.
6	FREQ	Switching Frequency Program Input. Connect a resistor from this pin to ground to set the switching frequency.
7	VIN	Input Supply. This supplies power to all the internal control circuitry, both BS regulators and the high-side switch. A decoupling capacitor to ground must be placed close to this pin to minimize switching spikes.
8	BST	Bootstrap. This is the positive power supply for the internal floating high-side MOSFET driver. Connect a bypass capacitor between this pin and SW pin.

MP1584EN Description

The **MP1584EN** is a high-frequency step-down **converter** with an integrated internal high-side high voltage power MOSFET. It provides 3A output with current mode control for fast loop response and easy compensation. The wide 4.5V to

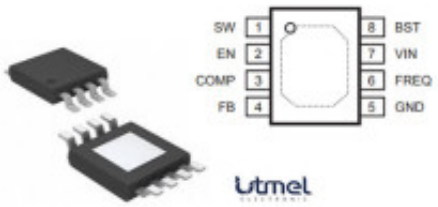
28V input range accommodates a variety of step-down applications, including those in an automotive input environment. A 100μA operational quiescent current allows use in battery-powered applications.

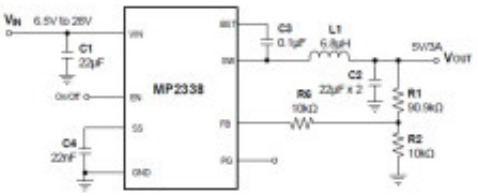
Pinout



Produktgalleri






VIN 6.5V to 28V
C1
22µF
On/Off
EN
MP2338
SS
C4
22nF
GND
BST
C3
0.1µF
SW
L1
6.8µH
5V/3A
VOUT
C2
22µF x 2
R1
60.9kΩ
R5
10kΩ
FB
R2
10kΩ
PG