

Ultralow Quiescent, Fast Transient Low Dropout Regulator

GENERAL DESCRIPTION

The MA3054 series is a high voltage, ultralow-power, low dropout voltage regulator. The device can deliver 350mA output current and allows an input voltage as high as 45V. The typical quiescent current is only 2.1 μ A. The device is available in fixed output voltages of 1.8V, 3.3V and 5.0V. The device features integrated short-circuit and thermal shutdown protection.

Although designed primarily as fixed voltage regulators, the device can be used with external components to obtain variable voltages.

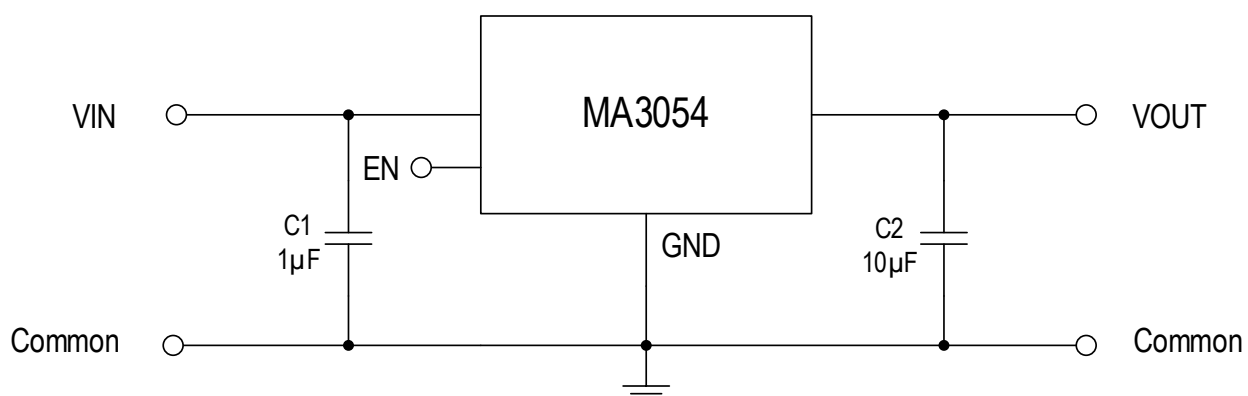
FEATURES

- Low Quiescent Current : 2.1 μ A
- High Input Voltage : Up to 45V
- High Output Current : 350mA
- Without Overshoot in Start Up
- Without Overshoot after Short Circuits Removed
- Low Dropout Voltage :
 - 50mV@10mA
 - 350mV@100mA
- Fixed Output Voltages : 1.8V, 3.3V and 5.0V.
- High-accuracy Output Voltage : \pm 2%
- Good Transient Response
- High PSRR: 85dB @ 1KHz
- Integrated Short-Circuit Protection
- Integrated Thermal Protection
- Available Package : SOT23-3L / SOT23-5L / SOT89-3L

APPLICATIONS

- Battery-Powered Equipment
- Smoke Detector and Sensor
- Portable Equipment
- Audio/Video Equipment

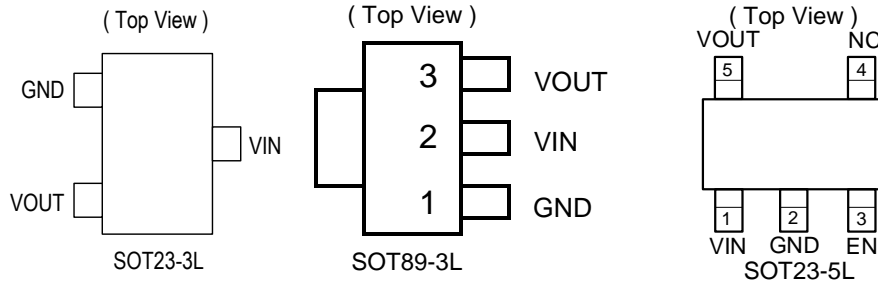
BASIC CIRCUIT



Ultralow Quiescent, Fast Transient Low Dropout Regulator

PIN ASSIGNMENT

The pin assignment is given by:



Name	Description
GND	Ground pin
VOUT	Regulator output pin
VIN	Regulator input supply pin
EN	Enable pin

ORDER / MARKING INFORMATION

Order Information	Top Marking (SOT23-3L / SOT23-5L)
<p>MA3054 X XX X → Packing</p> <p>Blank: Bag</p> <p>Package Type Output Voltage A: Taping</p> <p>A: SOT23-3L 18: 1.8V</p> <p>B: SOT23-5L 33: 3.3V</p> <p>F: SOT89-3L 50: 5.0V</p>	<p>5 4 X X B → B: Output accuracy ± 2%</p> <p>Output Voltage</p> <p>18: 1.8V</p> <p>33: 3.3V</p> <p>50: 5.0V</p> <p>Internal Code</p> <p>WW: 01~52</p> <p>Y: Year</p> <p>0: 2020</p>
Top Marking (SOT89-3L)	
<p>M5 4 X X B → B: Output accuracy ± 2%</p> <p>Output Voltage</p> <p>18: 1.8V</p> <p>33: 3.3V</p> <p>50: 5.0V</p> <p>Internal Code</p> <p>WW: 01~52</p> <p>Y: Year</p> <p>0: 2020</p>	