

Description

The GM6655 series is a low-dropout linear regulator. This series is specially designed for battery-operated systems. The ground current is very low (50µA Typ), that significantly extending battery life. Low power consumption and high accuracy is achieved through CMOS and programmable fuse technologies with the output voltage range from 1.5V to 6.0V.

The GM6655 consists of a high-precision voltage reference, an error correction circuit, and a current limited output driver. With good transient responses, output remains stable even during load changes. The SHDN input enables the output to be turned off, resulting in reduced power consumption.

Also, the GM6655 having high ripple rejection ratios, the series can be used with power supply noise. A 470pF capacitor from the bypass input to ground reduces noise present on the internal reference, which in turn significantly reduces output noise. If output noise is not a concern, this input may be left unconnected. Larger capacitor values C_{bp} be used, but results in a longer time period to rated output voltage when power is initially applied.

The GM6655 incorporates both over-temperature and over-current protection.

Features

- ◆ Maximum output current up 600mA
- ◆ Highly accurate output voltage: ±1.5%
- ◆ Low power consumption
- ◆ On-chip protections: Thermal, and Short Circuit
- ◆ Small input/output differential: 600mV at 600mA

Application

- Battery Operated Systems
- Portable Computers
- Portable Caremas and Video Recorders

- Reference Voltage Sources
- Instruments
- Pagers

Typical Application Circuits

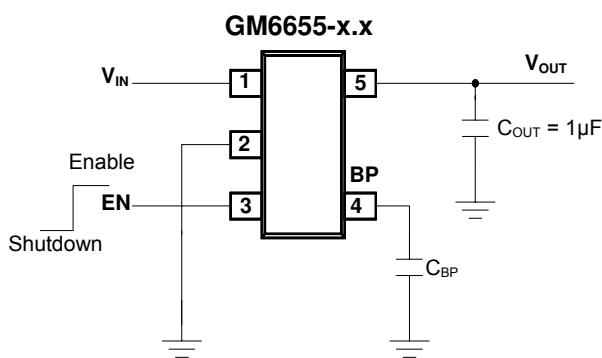


Figure 1 Fixed output version

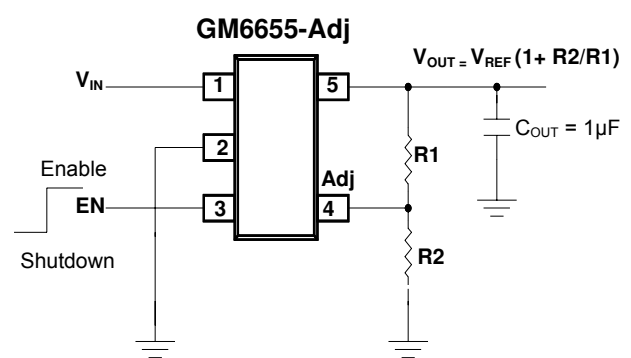
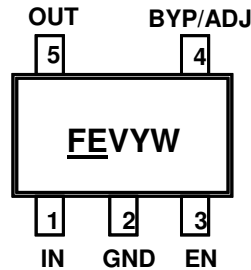


Figure 2. Adjustable output version

Note: EN (Pin 3) maybe connected directly to V_{IN} (Pin1)

Marking Information and Pin Configurations (Top View)

SOT25



FE: Device Code, Green Product
 V: Voltage Code (see next page)
 Y: Year
 W: Week code

Pin Descriptions

Pin Number	Pin Name	Pin Function	
1	IN	Supply Input	
2	GND	Ground	
3	EN	Enable/Shutdown (Input): CMOS compatible input. Logic high = Enable; logic low or open = shutdown	
4	Fixed output	BYP	Reference Bypass: Connect external 470pF capacitor to GND to reduce output noise. May be left open.
	Adjustable output	ADJ	Adjust (Input): Adjustable regulator feedback input. Connect to resistor voltage divider
5	OUT	Regulator Output	

Ordering Information

Ordering Number	Output Voltage	Voltage Code	Package	Shipping
GM6655-AST25RG	Adj	A	SOT-25	3,000 Units/Tape and Reel
GM6655-1.8ST25RG	1.8V	E	SOT-25	3,000 Units/Tape and Reel
GM6655-2.0ST25RG	2.0V	F	SOT-25	3,000 Units/Tape and Reel
GM6655-2.5ST25RG	2.5V	G	SOT-25	3,000 Units/Tape and Reel
GM6655-2.7ST25RG	2.7V	T	SOT-25	3,000 Units/Tape and Reel
GM6655-2.8ST25RG	2.8V	H	SOT-25	3,000 Units/Tape and Reel
GM6655-2.9ST25RG	2.9V	X	SOT-25	3,000 Units/Tape and Reel
GM6655-3.0ST25RG	3.0V	J	SOT-25	3,000 Units/Tape and Reel
GM6655-3.3ST25RG	3.3V	K	SOT-25	3,000 Units/Tape and Reel
GM6655-3.6ST25RG	3.6V	L	SOT-25	3,000 Units/Tape and Reel
GM6655-4.0ST25RG	4.0V	M	SOT-25	3,000 Units/Tape and Reel
GM6655-4.2ST25RG	4.2V	Y	SOT-25	3,000 Units/Tape and Reel
GM6655-5.0ST25RG	5.0V	Q	SOT-25	3,000 Units/Tape and Reel