300mA Low-Dropout Linear Regulators

Features

- **Low, 90µA No-Load Supply Current**
- **Guaranteed 300mA Output Current**
- **Dropout Voltage is 200mV @ 150mA Load**
- **Over-Temperature Protection and Short-Circuit Protection**
- **Two Modes of Operation ----**
  Fixed Mode: 1.5V~4.7V (interval =100mV)
  2.84V (G913A), 3.15V (G913B),
  4.75V (G913E),
  Adjustable Mode: from 1.25V to 5.5V
- **Max. Supply Current in Shutdown Mode < 1µA**
- **Low Output Noise at 220µV_{RMS}**
- **Stable with low cost ceramic capacitors**

Applications

- **Notebook Computers**
- **Cellular Phones**
- **PDAs**
- **Digital still Camera and Video Recorders**
- **Hand-Held Devices**
- **Bar Code Scanners**

General Description

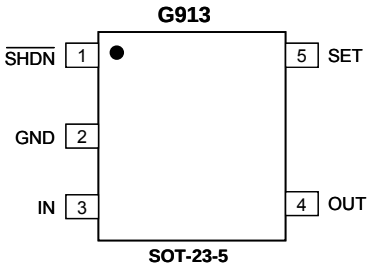
The G913 is a low supply current, low dropout linear regulator that comes in a space saving SOT-23-5 package. The supply current at no-load is 90µA. In the shutdown mode, the maximum supply current is less than 1µA. Operating voltage range of the G913 is from 2.5V to 5.5V. The over-current protection limit is set at 550mA typical. An over-temperature protection circuit is built-in in the G913 to prevent thermal overload. These power saving features make the G913 ideal for use in the battery-powered applications such as note-book computers, cellular phones, and PDA's.

The G913 has two modes of operation. When the SET pin is connected to ground, its output is a pre-set value: 1.5V~4.7V (interval =100mV), 2.84V, 3.15V, and 4.75V. There is no external component needed to de-cide the output voltage. When an output other than the preset value is needed, two external resistors should be used as a voltage divider. The output voltage is then decided by the resistor ratio. The G913 comes in a space saving SOT-23-5 package.

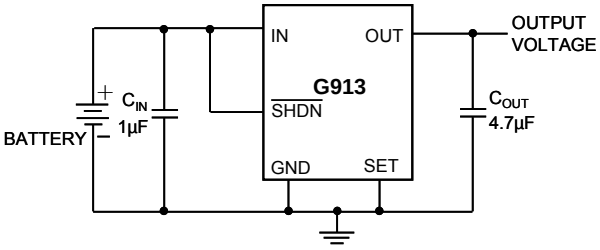
Ordering Information

ORDER NUMBER (Pb free/Green)	MARKING	VOLTAGE	TEMP. RANGE	PACKAGE
G913Af	3Axx	2.84	-40°C~ +85°C	SOT-23-5
G913Bf	3Bxx	3.15	-40°C~ +85°C	SOT-23-5
G913Cf	3Cxx	3.30	-40°C~ +85°C	SOT-23-5
G913Df	3Dxx	3.00	-40°C~ +85°C	SOT-23-5
G913Ef	3Exx	4.75	-40°C~ +85°C	SOT-23-5

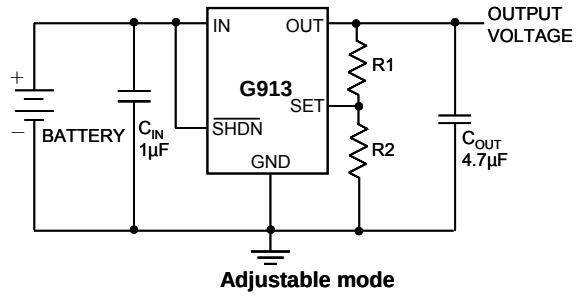
Pin Configuration



Typical Application Circuit



Fixed mode



Adjustable mode