

6A Low Dropout Regulator with Enable and Voltage Selection

Features

- DO, D1 and MODE pins to Select Output Voltage
- V_O Slew Rate is Between $0.5\text{mV}/\mu\text{s}$ to $10\text{mV}/\mu\text{s}$
- Input Voltage as Low as 1V and VPP Voltage 5V
- 150mV Dropout @ 6A, V_O 0.9V
- Over Current and Over Temperature Protection
- Enable Pin
- Low Reverse Leakage (Output to Input)
- Power SOP-8 (FD) Packages with Thermal Pad
- $\pm 1.5\%$ Output Voltage
- V_O Power OK Signal
- V_O Pull Low Resistance when Disable
- V_O Soft Start when Enable and D0, D1 Changes

Applications

- Motherboards
- Notebook Computers

General Description

The G978 is a high performance positive voltage regulator designed for use in applications requiring very low Input voltage and very low dropout voltage at up to 6 amps. It operates with VPP voltage 5V and input voltage as low as 1.0V. The G978 features ultra low dropout, ideal for applications where V_O is very close to V_{IN} . Additionally, the G978 has an enable pin to further reduce power dissipation while shutdown. The G978 provides excellent regulation over variations in line, load and temperature. The G978 provides a power OK signal to indicate if the voltage level of V_O reaches 92% of its rating value.

The G978 is available in the power SOP-8 (FD) package. It is adjustable using external resistors.

Ordering Information

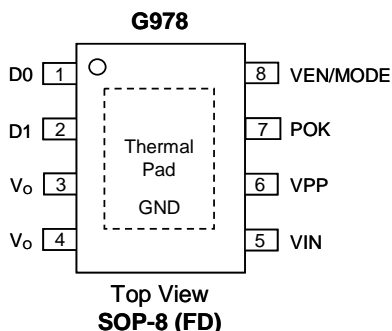
| ORDER NUMBER | MARKING | TEMP. RANGE | PACKAGE (Green) |
|--------------|---------|-------------|-----------------|
| G978F11U | G978 | -40°C~+85°C | SOP-8 (FD) |

Note: F1: SOP-8 (FD)

1: Bonding Code

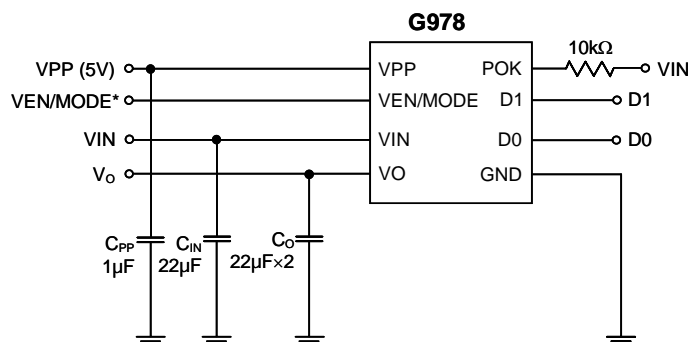
U: Tape & Reel

Pin Configuration



* Thermal Pad is GND connection.

Typical Application Circuit



*Note:

| VEN/MODE(VPP=5V) | VEN | VEN/MODE(VPP=5V) | MODE |
|------------------|-----|------------------|------|
| >1.0V | 1 | >2.5V | 1 |
| <0.5V | 0 | <1.9V | 0 |