GM7109HV

150KHz, 60V/3A STEP DOWN VOLTAGE SWITCHING REGULATORS

Description

GM7109HV series is designed to provide all the active function for a step-down (buck) switching regulator, and drives a maximum load current as high as 3A line and load regulations. GM7109HV is available in fixed output voltages of 3.3V, 5V, and a versatile Adjustable output version.

These regulators are simple to use and require minimum number of external components. The features include internal frequency compensation and a fixed-frequency oscillator.

The GM7109HV is high-efficiency replacements for popular three-terminal linear regulators, and is requiring a smaller heat sink or even no need heat sink.

GM7109HV performs well with standard inductors from most of manufacturers, and simplifying the design of switch-mode power supplies. External shutdown is included with 80 µA (typical) standby current. The output switch has cycle-by-cycle current limiting as well as thermal shutdown for full protection under fault conditions.

GM7109HV operates at a switching frequency of 150 kHz which allowing smaller size filter components than what would be needed with lower frequency switching regulators.

GM7109HV series are available in a standard 8 lead SO package with heat sink

Features

- **Standard ESOP8 package is available**
- **3.3V, 5V, 12Vand Adjustable output versions**
- **Adjustable version output voltage range 1.23V to 57V**
- **V_{OUT} accuracy is to ±2% under specified input voltage the output load conditions**
- **Input voltage range up to 60V**
- **Requires only 4 external components with High efficiency**
- **TTL shutdown capability, low power standby mode**
- **Built-in thermal shutdown, current limit protection**
- **Uses standard inductors**
- **150 kHz fixed frequency internal oscillator**

Application

Pre-regulator for linear regulators

High-efficiency step-down buck regulator

On-card/board switching regulators

Positive to negative converter (buck-boost)

LCD Monitors

Typical Application Circuits