
30V input Over-Voltage-Protector (OVP)

1 Description

The SY8703 is an Over-Voltage-Protector (OVP) with fixed 6.0V OVP threshold voltage and maximum of 1A current. The SY8703 can monitor the input voltage value in real time, and when the input voltage exceeds the over-voltage protection threshold, it can quickly turn off the internal MOSFET within 50nS to protect the backend low-voltage system from abnormally high input voltage.

The SY8703 contains a 320 mΩ (typ.) N-channel MOSFET. The SY8703 can withstand an input voltage of 30V. When combined with a TVS, it exhibits better inrush voltage tolerance, making it well-suited for interface application environments. The soft start function can limit the turn-on speed of the MOSFET and effectively suppress the inrush current.

SY8703 integrates under-voltage lockout (UVLO) protection and over-temperature protection (OTP) to ensure that the SY8703 turns off the MOSFET in time under abnormal conditions, improving reliability.

The SY8703 is available in Green SOT23 package with a size of 2.9mm*1.3mm*1mm.

2 Applications

Smart phone, Watches, Wristband
TWS
Low power handheld devices
PDAs
E-cigarette

3 Features

- Input voltage range: 3V~30V
- Ultra-fast OVP response time: 50nS (Typ.)
- Fixed OVP threshold voltage: 6.0V, ±4%
- 320mΩ on resistance
- Soft start to suppress inrush current
- Maximum output current: 1A
- Thermal Shutdown
- Input under-voltage lockout
- Available in Green SOT23 Package

4 Typical Application Circuit

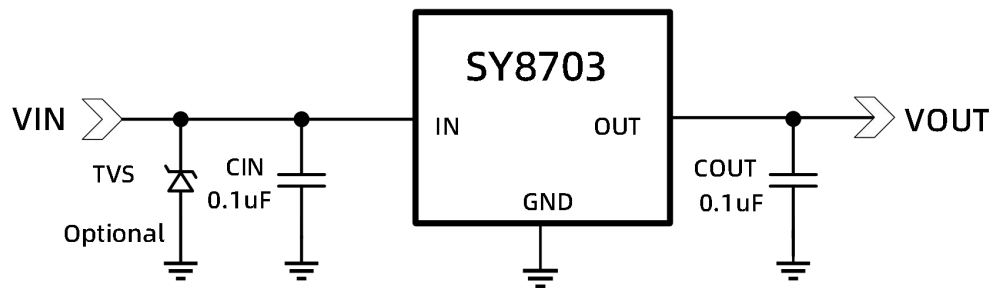


Figure 4- 1. Typical Application Circuit