General Description

SY5321 is a highly integrated IC with input undervoltage and overvoltage protection, abnormal load current protection and over temperature protection. The SY5321 is used at the front end of charging circuits or low-voltage systems to protect the low-voltage system from abnormal input faults and can withstand abnormal input voltages up to 28V. SY5321 can use OVP pin to set the external input overvoltage threshold or the IC internal input overvoltage threshold. If the OVP pin voltage is higher than 0.6V, the IC will select the OVP threshold set by the external resistor partial voltage. If the OVP pin voltage is less than 0.15V, the IC will select the internal OVP threshold.

When the input voltage exceeds the overvoltage protection threshold, the IC quickly shuts down the internal MOSFET within 50nS to protect the backend low-voltage system from abnormally high input voltage ; the IC can limit the input current through the resistance connecting ILIM and ground to prevent the input current of the low-voltage system from being too large; When detecting that the temperature exceeds the over temperature threshold, the IC will shut down the MOSFET and stops the power supply.

If SY5321 is controlled by a processor, the host can obtain the IC operating status by viewing the FLT status.

The SY5321 is available in DFN-2X2-8L package and is rated in temperatures ranging from -40℃ to +85℃.

Applications

- Smart phone，Mobile phone
- PDAs
- MP3 player
- Low power handheld devices
- Bluetooth headset

Features

- 28V input withstand voltage
- High precision input overvoltage protection
- The input OVP protection shutdown time is less than 50nS
- Soft start to suppress surge Current
- External resistance setting by OCP pin ,500mA~3A ±10% accuracy
- Thermal Shutdown
- Support EFUSE applications
- EN Enable function
- Indicates the status of FLT
- Available in a DFN-2X2-8L package

Typical Application Circuit