## General Description

The SY5320 is a highly integrated circuits with input under-voltage and over-voltage protection, battery over-voltage protection, abnormal load current protection, over temperature protection. SY5320 is used at the front end of charging circuits or low-voltage systems, it can withstand high input voltages up to 28V. When the input voltage exceeds the overvoltage protection threshold, the internal MOSFET will be turned off within 1μs to protect the back-end low-voltage system. When the battery voltage exceeds 4.45V, the IC will turn off the MOSFET to protect the lithium battery. The IC will limit the input current to a safe value by using the external resistance between ILIM and GND.

When IC detects the chip temperature exceeds 140°C, it will turn off MOSFET. When SY5320 is under control of processor, device can obtain the IC's working condition through the WRO status.

The SY5320 can be used to DFN-2x2-8L package. The rated temperature is -40°C~+85°C.

## Applications

- Smart phone, mobile phone
- PADS
- MP3 Player
- Low-power handheld devices
- Bluetooth Earphone

## Features

- 28V Maximum input voltage
- Input Over Voltage Protection
- Input OVP Delay Time <1us
- Accurate Battery Over-Voltage-Protection
- Soft-start to prevent Inrush currents
- Soft-stop to prevent voltage spikes
- Support Input Current from 100mA to 1.5A；default 100mA if ILIM be left floating or 1.5A if ILIM be connected to ground
- ±10% OCP accuracy (ILIM be connected a resistance to ground)
- Over temperature protection
- EN Function
- WRO Status Indication
- DFN-2x2-8L Package

## Typical Application Circuit