General Description

The SY5702 is an ultra-low power (IQ: 200nA, ISD: 20nA) load switch with reverse current protection and high switching speed. It can work from 1.2V to 5.5V and load 2A continuous current. The EN pin leakage current is only 5nA due to the smart pull down resistor.

The SY5702 integrates an 35mΩ (typ.) N-channel MOSFET, which can work with input voltage range of 1.2V to 5.5V. The switch is controlled with EN pin, which supports the 1.2V I/O application. The EN pin has an internal 1MΩ pull-down resistor to keep switch shutdown when the voltage of EN pin is lower than VIL. In order to reduce leakage current, the resistor will be disconnected when the voltage of EN pin is higher than VIH.

The SY5702 integrate output slew rate control to avoid inrush current while controlling short turn-on time. The typical turn-on time of switch is 100µS.

The SY5702 is available in FOCSP-4 and DFN 1x1-4L package

Applications

- Smart phone, Mobile phone
- Wearable device
- Bluetooth headset
- E-cigarette

Features

- Input voltage range: 1.2V~5.5V
- Low output on resister:

- RON = 33mΩ at VIN = 5.5V
- RON = 34mΩ at VIN = 3.3V
- RON = 35mΩ at VIN = 1.2V

- Maximum output current: 2A
- IQ: 200nA, ISD: 20nA
- Switch turn-on time: 100µS
- Quick output discharge (QOD)
- Soft start to restrain inrush current
- Smart pull-down resistor
- Available in FOCSP-0.76mmx0.76mm-4B
- pitch 0.4mm and DFN-1x1-4L package.

Typical Application Circuit