

## Low Quiescent Current Regulator

### 1 Description

The SY5002 is a low quiescent current and low dropout voltage regulator with output voltages between 0.85 V and 5.0 V capable of delivering up to 300 mA.

SY5002 has an automatic discharge function to quickly discharge  $V_{OUT}$  when EN is disabled.

SY5002 feature Over-current protection, Thermal Shutdown and Auto-discharge function.

The SY5002 is offered in the DFN1X1-4/SOT23-5 package.

### 2 Application

wearable devices

IoT devices

portable applications

### 3 Features

- Low dropout voltage:  $V_{DO} = 196 \text{ mV (typ.)}$  at 3.3 V-output,  $I_{OUT} = 300 \text{ mA}$
- Quiescent current: 0.55uA
- Stand-by current: 0.03uA
- Input voltage range: 1.8~5.5V
- Fixed output voltage: 1.8V, 3.3V (Other output voltage versions need to be customized)
- High output voltage accuracy:  $\pm 1.0 \%$  ( $1.8 \text{ V} \leq V_{OUT}$ )
- Output current: 300mA (MAX)
- Auto-discharge
- Over-current protection
- Thermal Shutdown
- Available in two different packages: DFN1X1-4 and the SOT23-5 package

### 4 Simplified Schematic

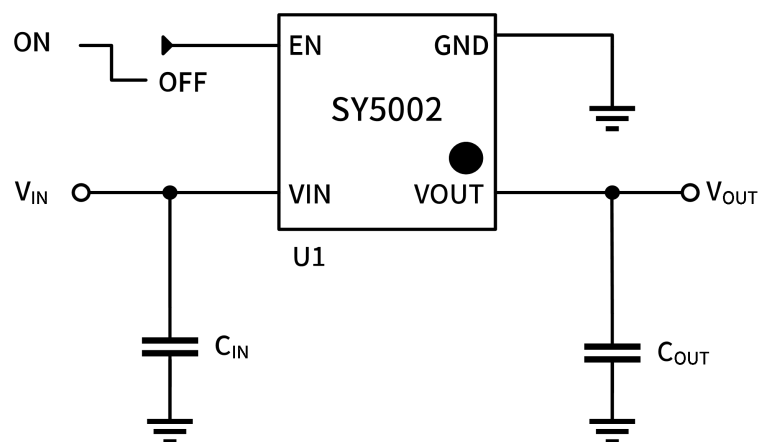


Figure 4-1. Simplified Schematic