



JSS45560

### 1-channel Smart Power Switch

## Description

JSS45560 is a 1-channel smart power switch which provides reliable power domain switching without the risk of high in-rush current. It supports input voltage range of 0.5 ~ 20V.

The device incorporates major functional blocks like slew-rate controlled soft-start, power good output, load bleeding, ultra-low R<sub>ON</sub>. To ensure safe and reliable operation, the following protection features are embedded: input UVLO, output current limiting, thermal shut-down.

JSS45560 is manufactured free of halogen / lead / antimony and fully RoHS compliant. Packages offered include DFN3030-12L.

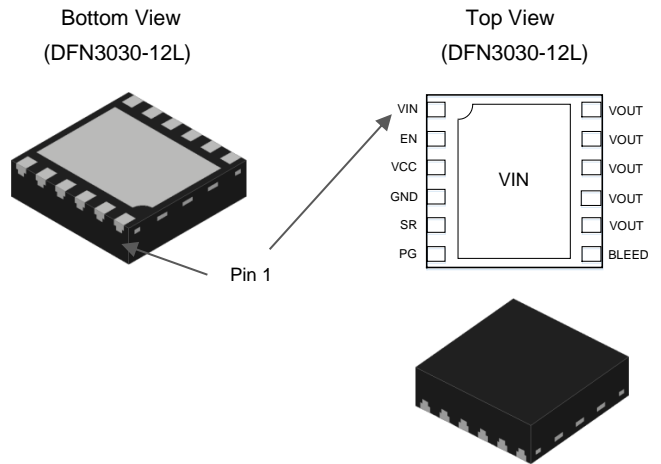
## Applications

- Sequencing & switching of power to electronic loadings on pcb
- Mainboards & Control Boards in CE, Computing, Networking, Communications, Industrial, Commercial, Automotive sub-systems and end equipments

## Features and Benefits

- Wide range of input voltages at 0.5 ~ 20V supported
- Integrated Charge Pump and N-ch. MOSFET w/ ultra-low RDS(ON)
- Built-in soft-start w/ adjustable slew rate
- Power Good output to ease system design
- Exceptionally-low standby current consumption
- Full suite of protection function: input UVLO, output short-circuit and load bleeding, thermal shut-down
- Lead-free package assembled with 'green' molding compound

## Pin Assignment

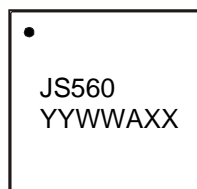


## Ordering Information

Product Name	Package	Marking	MSL	T <sub>J</sub> (°C)	Media	Quantity (pcs)
JSS45560-7	DFN3030-12L		1	-40 ~ 125	13" T&R	1500

## Marking Information

### Top View



JS560 = Product Type Marking Code

Second Line: Date Code

YY: Last Two Digits of Year (e.g.: 23 = 2023)

WW: Work Week (e.g.: 01 ~ 53)

A: Code for Assembly & Test Site

XX: 7<sup>th</sup> & 8<sup>th</sup> Digits of Batch Number

## Typical Application Circuit

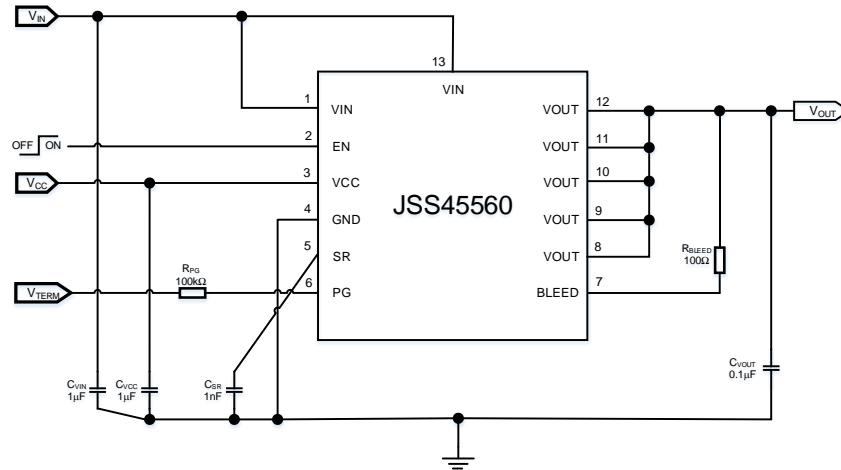


Fig. 1: Application Circuit

## Diagram of Function Blocks

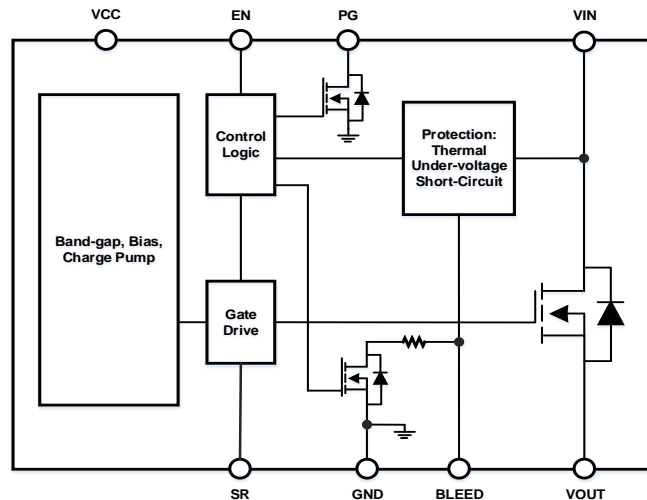


Fig. 2: Function Blocks

## Pin Description

Pin Number	Pin Name	Description
1, 13	VIN	Drain Terminal of Built-in MOSFET. At the pcb on which the device is mounted, pins 1 & 13 must be tied.
2	EN	Active 'High' Enable Input for Device. An internal pull-down (to GND) resistor is present.
3	VCC	Voltage Supply (3.0 ~ 5.5V) to Device.
4	GND	GND to Device.
5	SR	Adjustment Input for Slew Rate. See Table of Rise Time vs C <sub>SR</sub> Capacitance
6	PG	Active 'High' Open-drain Output. It indicates when the gate terminal of built-in MOSFET is fully charged. A pull-up resistor (≥ 1kΩ) must be tied to an external voltage source. If unused, it must be tied to GND.
7	BLEED	Load Bleeding Terminal. It must be tied either directly or through a resistor (≤ 1kΩ) to VOUT pin.
8 ~ 12	VOUT	Source Terminal of Built-in MOSFET. By default, it is also connected to the load.