USB Power Loading Switch

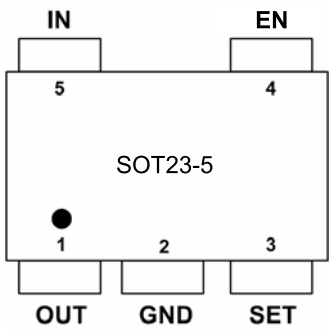
DESCRIPTION

The TPW5203 are Current Limited P-channel MOSFET power switches designed for high-side load-switching applications. The internal current-limiting circuit protects the input supply against large output short circuit current which may cause the supply to fall out of regulation.The current limit threshold is programmed with an external resistor from SET Pin to ground.The quiescent supply current is typically 8μA, making the device ideal for portable battery-operated equipment. In shutdown mode, the supply current decreases to less than 0.1μA.

Additional features include thermal shutdown to prevent catastrophic switch failure from high current loads, under-voltage lockout (UVLO) to ensure that the device remains off unless there is a valid input voltage present.

The TPW5203 are available in 5 pin SOT-23 packages.

Pin Configurations



FEATURES

- 2.4V to 5.5V Input voltage range
- Programmable Over Current Threshold
- Fast Transient Response:
- Low Quiescent Current
  - 8μA Normal Operation
  - 1μA Max in Shutdown
- 115mΩ typical $R_{DS(ON)}$
- Only 1.8V needed for ON/OFF Control (EN::Active High)
- Under-Voltage Lockout
- Thermal Shutdown
- 4kV ESD Protection
- Available in SOT23-5 Package
- RoHS Compliant and 100% Lead(Pb)-Free

APPLICATIONS

- Peripheral ports
- Notebook computers
- Personal communication devices
- Hot swap supplies

Marking Information

For marking information, contact our sales representative directly or through a TPmicro distributor located in your area.

Ordering Information

TPW5203 - □□□

F:Pb-free

Package Type

B5:SOT23-5

Pin Description

SOT23-5	NAME	DESCRIPTION
1	OUT	Output Terminal. Connect a 0.47uF capacitor from V_{OUT} to Ground
2	GND	Ground Connection.
3	SET	Current-Limit Set Input. Connect a resistor R_{SET} from SET to ground to set the current limit for the switch.
4	EN	Enable input , Active high. Set logic high to enable the device, and set logic low to disable the device.
5	IN	Input supply connection. Connect a 1uF capacitor from V_{IN} to Ground