

5.5V 4A Low-Ron Power Distribution Load Switch

Description

The MT7693 is a compact, low R_{ON} load switch with controlled slew rate. The device operates over an input voltage range of 2.5V to 5.5V and can support maximum continuous current of 4A. The controlled output slew rate greatly reduces inrush current at start-up when charging large bulk load capacitances, thereby minimizes input supply voltage droop. MT7693 comes with built-in full protections against over current, over voltage and over temperature. MT7693 provides an accurate enable threshold which allows users to program input under-voltage lockout (UVLO) threshold through external resistor divider network. MT7693 also has reverse blocking function that prevents current flowing from output to input when MT7693 is disabled. The MT7693 is available in small 4-pin 1.2mm X1.6mm DFN (MT7693N) and 5-pin SOT235 (MT7693A) packages.

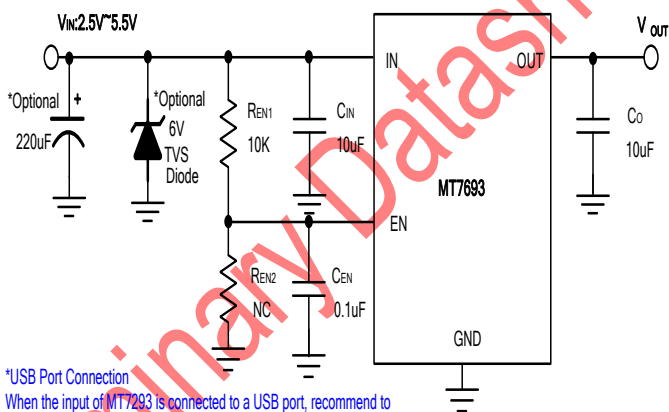
Features

- Wide Input Range from 2.5V to 5.5V
- Low R_{ON}
 - 26m Ω for MT7693N
 - 48m Ω for MT7693A
- Up to 4A continuous load current
- Built-in 550 μ s Soft-start for 5V output
- Built-in Over-Voltage, Over-Current and Over Temperature Fault Protections
- Accurate 1.2V Enable Threshold
- Reverse Blocking Function allows V_{OUT} be higher than V_{IN} in shutdown

Application

- Solid-state Drives
- Wearable IOT Devices
- Portable Medical Equipment
- Portable Media Players
- Smartphones and Tablets

Typical Applications



*USB Port Connection
When the input of MT7693 is connected to a USB port, recommend to add either a 6V Rating TVS diode or a 220uF Aluminum Cap to absorb input surge current during USB cable hot plug-in.

MT7693N R_{ON} vs. Input Voltage

