

Features

- 4.5V to 5.5V Input Voltage Range
- Compliant to USB Specifications
- Output Voltage Switch to 5VSB at S3/S4/S5
200mA continuous Load Current
400mΩ Typ. High-side NMOSFET
- Output Voltage Switch to 5VCC at S0/S1/S2
1.5A continuous Load Current
80mΩ Typ. High-side NMOSFET
- 50uA Quiescent Supply Current
- Less Than 1uA Shutdown Current
- 1.3ms Typical Rise Time and Fast Turn off
- Active-High Control Logic
- Under voltage Lockout
- Deglitched Fault Report (OC#)
- PSOP-8, TDFN8-2x2 and TSOT-23-8 Package
- Green Product (RoHS, Lead-Free,
- Halogen-Free Compliant)
- UL Approved: E470137
- TuV EN60950-1 Approved: R 50294829
- CB IEC60950-1 Approved: JPTUV-059182

Applications

- Notebook and Desktop PCs
- USB Power Management
- ACPI Power Distribution
- Hot-Plug Power Supplies

General Description

The GS7605 is a current limited power multiplexer. This device is intended for applications where heavy capacitive loads and short-circuits are likely to be encountered. It switches output voltage to 5VSB at S3/S4/S5 state with 400mΩ switch and 200mA capacity; to 5VCC at S0/S1/S2 state with 80mΩ switch and 1.5A capacity.

Optimal switch logic according to S3# and 5VCC status ensures seamless output voltage transition.

Several Protection features include soft start function to limit inrush current, current limiting and thermal shutdown to prevent catastrophic switch failure caused by increasing power dissipation when continuous heavy loads or short circuit occurs. UVLO ensures that the device remains off unless there is a valid supply voltage present.

OC# is open-drain output report over-current or over-temperature event and has typical 8ms deglitch timeout period.