

## USB Power Switch Single 5.5V 0.9A 8-Pin SOIC Tube



Images are for reference only

[Inquiry](#)

**Manufacturer:** [Texas Instruments, Inc](#)

**Package/Case:** SOP8

**Product Type:** Switches

**RoHS:** RoHS Compliant/Lead free 

**Lifecycle:** Active

### General Description

The TPS2041 and TPS2051 power distribution switches are intended for applications where heavy capacitive loads and short circuits are likely to be encountered. The TPS2041 and the TPS2051 are 135-mN-channel MOSFET high-side power switches. Each switch is controlled by a logic enable that is compatible with 5-V logic and 3-V logic. Gate drive is provided by an internal charge pump designed to control the power-switch rise times and fall times to minimize current surges during switching. The charge pump requires no external components and allows operation from supplies as low as 2.7 V. When the output load exceeds the current-limit threshold or a short is present, the TPS2041 and TPS2051 limit the output current to a safe level by switching into a constant-current mode, pulling the overcurrent (OC) logic output low. When continuous heavy overloads and short circuits increase the power dissipation in the switch, causing the junction temperature to rise, a thermal protection circuit shuts off the switch to prevent damage. Recovery from a thermal shutdown is automatic once the device has cooled sufficiently. Internal circuitry ensures the switch remains off until valid input voltage is present. The TPS2041 and TPS2051 are designed to limit at 0.9-A load. These power distribution switches are available in 8-pin small-outline integrated circuit (SOIC) and 8-pin plastic dual-in-line packages (PDIP) and operate over an ambient temperature range of -40°C to 85°C. The D package is available taped and reeled. Add an R suffix to device type (e.g., TPS2041DR)

### Key Features

500mA Per Channel Continuous current

Independent thermal and short-circuit protection with overcurrent logic output

CMOS- and TTL-compatible enable inputs

2.5ms Typical rise time

Undervoltage lockout

Bidirectional switch

### Recommended For You

**TPD3S014DBVR**

Texas Instruments, Inc  
SOT23-6

**TPS2065CDBVR**

Texas Instruments, Inc  
SOT23-5

**TPS2557DRBT**

Texas Instruments, Inc  
SON8

**TPS2042BDR**

Texas Instruments, Inc  
SOP8

**TPS2051BDR**

Texas Instruments, Inc  
SOP8

**TPL7407LPWR**

Texas Instruments, Inc  
TSSOP16

**TPS23753APWR**

Texas Instruments, Inc  
TSSOP14

**TPS2116DRLR**

Texas Instruments, Inc  
SOT5X3-8

**TPS259460ARPWR**

Texas Instruments, Inc  
VQFN-10

**TPS23751PWPR**

Texas Instruments, Inc  
HTSSOP16

**TPS65150QPWPRQ1**

Texas Instruments, Inc  
HTSSOP-24

**TPS2410PWR**

Texas Instruments, Inc  
TSSOP-14

**TPS22914BYFPR**

Texas Instruments, Inc  
DSBGA4

**TPS2115ADRBR**

Texas Instruments, Inc  
VSON8

**TPS2113ADRBR**

Texas Instruments, Inc  
SON8