

**5.5V, 6A, Low On-Resistance Dual Channel Load Switch**

**Features**

- ★ Low R<sub>ON</sub> internal NFETs: 15mΩ (typical) at VBIAS = 5V & VIN = 0.6V to 5V
- ★ Open-drain Power Good Indicator for PS3002C/D
- ★ Independent Over Current Protection per Channel
- ★ Fast Turn ON Time for PS3002B/D
- ★ Input Voltage Range: 0.6V to 5.5V
- ★ VBIAS Voltage Range: 2.5V to 5.5V
- ★ Integrated Dual Channel up to 6A Continuous Output Current per Channel
- ★ Low Quiescent Current
  - 20μA (Single Channel) 、 38μA (Both Channels) for PS3002A/C
  - 27μA (Single Channel) 、 50μA (Both Channels) for PS3002B/D
- ★ Adjustable Rise Time
- ★ Integrated Quick Output Discharge Resistor
- ★ WDFN3×2-14T Package with Thermal Pad
- ★ RoHS Compliant and Halogen Free

**General Description**

The PS3002 series consist of these numbers: PS3002A/B/C/D. Each device is dual channel load switch with independent ON controlled pins. The PS3002 contains two channel MOSFETs that can be operated between input voltage range from 0.6V to 5.5V. The R<sub>ON</sub> resistance of each MOSFET is typical 15mΩ and provides low IR drop for maximum continuous current of 6A and maximum pulsed current of 8A (pulse <300μs). The device also supports dual channel parallel operation for higher current applications. To prevent an excessive amount of current being happened, the PS3002 provides over current protection (OCP) function and over-temperature protection (OTP) for preventing the device burn out. The PS3002C/D also provide an open-drain Power Good (PG) indicator. The PS3002B/D provide the fast turn on time for different slew rate requirements. The PS3002 series are available in a 3mm×2mm WDFN-14T package and are rated over a -40°C to +85°C ambient temperature range.

**Applications**

- ★ Laptop Computers
- ★ Tablet PCs
- ★ Networking Systems
- ★ Distributed Power Systems
- ★ Flat Panel Television and Monitors
- ★ Personal Video Recorders
- ★ Servers

**Simplified Application Circuit**

